XR-7070/7071/7072

SERVICE MANUAL

US Model
Canadian Model
E Model
XR-7070
AEP Model
XR-7070/7071
Germany Model
XR-7072

Photo: XR-7070

NOTE : XR-7070 (US model) is revised.

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-38AKV-34

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS
(7070 (US/Canadian))
POWER OUTPUT AND TOTAL HARMONIC DISCRIPTION
10 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30 – 20,000 Hz with no more than 1% total harmonic distortion.

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	3.2 – 8 ohms
Maximum power output	20 W × 4 (at 4 ohms)* *Measured at 14.4 V

Cassette player section

Tape track	4-track 2-channel stereo
Frequency responce	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B	Dolby off
TYPE II , IV	66 dB	58 dB
TYPE I	63 dB	55 dB

Wow and flutter 0.13% (WRMS)

Tuner section
FM

Tuning range	XR-7070 (US/Canadian): 87.9 – 107.9 MHz XR-7070 (AEP/E)/7071/7072 87.5 – 108.0 MHz
Antenna terminal	External antenna connector
Intermediate-frequency	10.7 MHz
Usable sensitivity	12 dBf (75 ohms)
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 70 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

– Continured on next page –

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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FM/AM CASSETTE CAR STEREO

SONY®

AM (MW/LW)

Tuning range	XR-7070 (US/Canadian): 530 – 1,710 kHz XR-7070 (AEP/E)/7072 European and other countries 531 – 1,602 kHz (at 9 kHz step) North and South American countries 530 – 1,620 kHz (at 10 kHz step) AM tuning interval 9 kHz/ 10 kHz switchable XR-7071: MW 531 – 1,602 kHz LW 153 – 281 kHz
Antenna terminal	exterminal antenna connector
Intermediate frequency	450 kHz
Sensitivity	XR-7070/7072: 35 μV XR-7071: MW 35 μV LW 70 μV

General

Output lead	Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ± 10 dB at 100 Hz Treble ± 10 dB at 10 kHz
Loudness	+6 dB at 100 Hz +6 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions (without bracket)	Approx. 178 × 50 × 167 mm (w/h/d) ($7^1/_{16} \times 2 \times 6^5/_8$ inches) not incl. projecting parts and controls
Mounting dimensions	Approx. 182 × 53 × 145 mm (w/h/d) ($7^1/_8 \times 2^1/_8 \times 5^3/_4$ inches) not incl. projecting parts and controls
Weight	Approx. 2 kg (4 lb. 7 oz.)
Accessories supplied	Mounting hardware (1 set)

Design and specifications subject to change without notice.

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Installation/Installation/Montage

Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or from hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Note on the carrying handle
The unit can be installed with or without the carrying handle. When you want to take the unit with you when you leave your car, install the unit with the carrying handle (see instruction **3 A**). If not, install it without the carrying handle.

Précautions

- Choisir soigneusement l'emplacement de montage pour que l'appareil n'interfère pas avec les fonctions normales de conduite du véhicule.
- Eviter d'installer l'appareil là où il est susceptible de subir une haute température telle que celle de la lumière directe du soleil ou provenant d'un appareil de chauffage ou là où il serait exposé à la poussière ou la saleté ou à une vibration excessive.
- Utiliser uniquement le matériel de montage fourni pour effectuer une installation sûre.

Remarque sur la poignée de transport
L'appareil peut être installé avec ou sans la poignée de transport. Si vous voulez prendre l'appareil avec vous lorsque vous laissez votre voiture, il suffit d'installer l'appareil avec la poignée de transport en place (voir instruction **3 A**). Sinon, l'installer sans la poignée de transport.

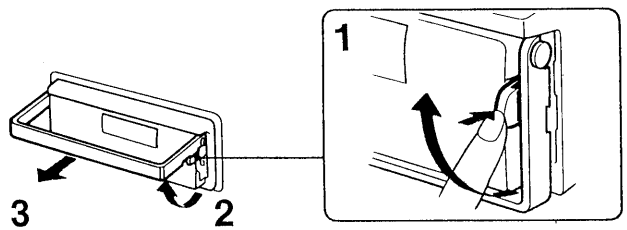
Opgelet

- Installeer het apparaat niet op een plaats waar het u bij besturing van de auto zou kunnen hinderen.
- Installeer het apparaat niet op plaatsen waar het blootgesteld wordt aan hoge temperaturen zoals van direkt zonlicht of de warme luchtstroom van de autoverwarming, aan sterke trillingen, of waar het in kontakt komt met veel stof of vuil.
- Gebruik voor het veilig en stevig monteren van het apparaat uitsluitend de bijgeleverde montage-onderdelen.

Opmerking betreffende de draagbeugel
Het apparaat kan met of zonder draagbeugel geïnstalleerd worden. Wanneer u bij het verlaten van de auto het apparaat met u mee wilt nemen, installeer dan het apparaat met draagbeugel (Zie aanwijzing **3 A**.). Mocht dit niet het geval zijn, installeer het apparaat dan zonder draagbeugel.

To Remove the Unit
Retrait de l'appareil
Verwijderen van het apparaat

When installed with the carrying handle
Lorsque l'appareil est installé avec la poignée de transport
Wanneer het apparaat geïnstalleerd is met de draagbeugel

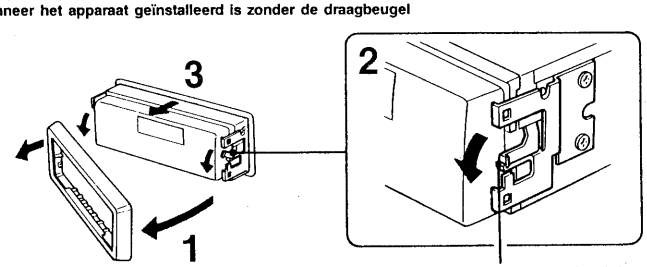


To prevent the unit from being stolen
When you leave your car, remove the unit from the bracket and take it away with you.

Prévention contre le vol
Lorsque l'on quitte la voiture, enlever l'appareil du support et l'amener avec soi.

Voorkomen dat het apparaat gestolen wordt
Verwijder bij het verlaten van de auto het apparaat uit het inbouwframe en neem het met u mee.

When installed without the carrying handle
Lorsque l'appareil est installé sans la poignée de transport.
Wanneer het apparaat geïnstalleerd is zonder de draagbeugel



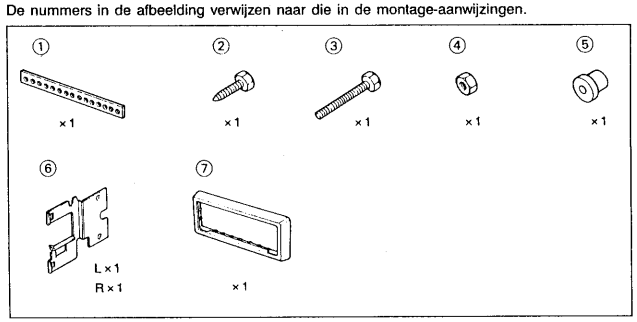
Press down this part lightly not to break it.

Appuyer légèrement sur la partie grise afin de ne pas briser cette partie.

Druk het zilverkleurige gedeelte enigzins naar beneden. Pas op dat niets afbreekt.

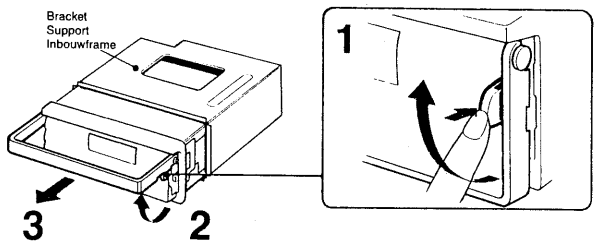
Supplied Mounting Hardware
Matériel de montage fourni
Bijgeleverde montage-onderdelen

The numbers in the list are keyed to those in the instructions.
Les numéros dans la liste correspondent à ceux se trouvant dans les instructions.
De nummers in de afbeelding verwijzen naar die in de montage-aanwijzingen.

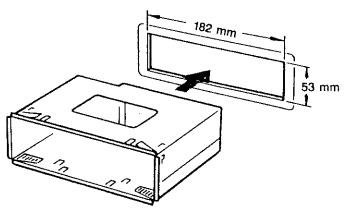


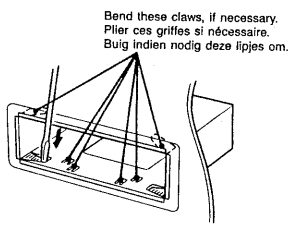
This section is extracted from XR-7070 (E model) or XR-7070 (AEP model)/7071 instruction manual.

1 Remove the unit from the bracket.
Déposer l'appareil du support.
Verwijder het apparaat uit het inbouwframe.

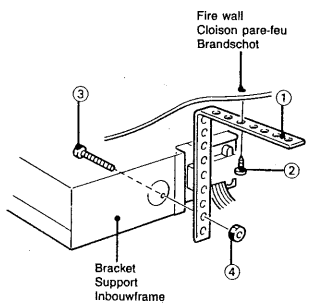


2 Install the bracket in the dashboard.
Installer le support dans le tableau de bord.
Monteer het inbouwframe in het dashboard.

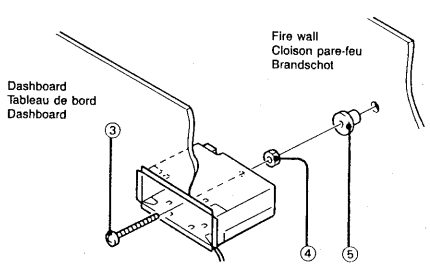




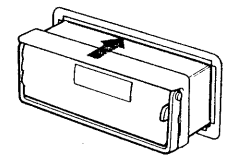
Example 1
Exemple 1
Voorbeeld 1



Example 2
Exemple 2
Voorbeeld 2

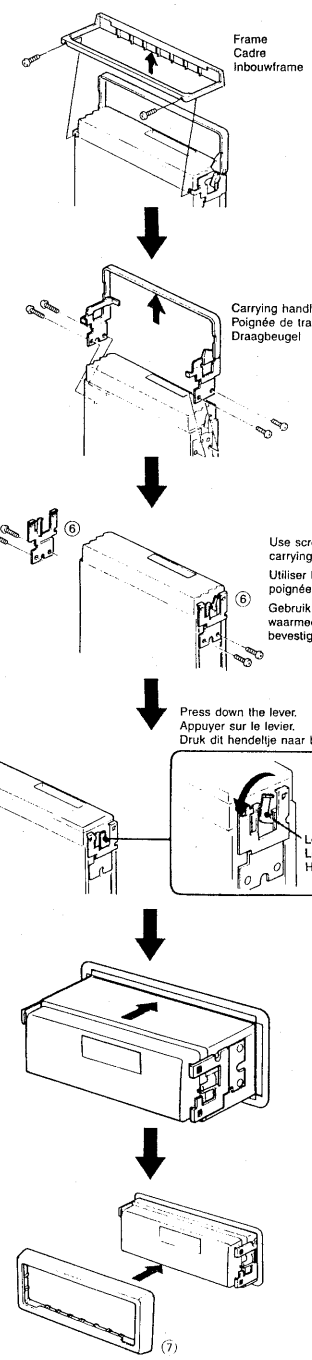


3A When installing the unit with the carrying handle
Installation de l'appareil avec la poignée de transport
Wanneer het apparaat met de draagbeugel geïnstalleerd wordt



Push in the unit until it is locked firmly.
Pousser l'appareil jusqu'à ce qu'il soit bien bloqué.
Druk het apparaat aan tot het stevig blijft zitten.

3B When installing the unit without the carrying handle
Installation de l'appareil sans la poignée de transport
Wanneer het apparaat zonder de draagbeugel geïnstalleerd wordt



Connections/Connexions/Aansluitingen

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal. It will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

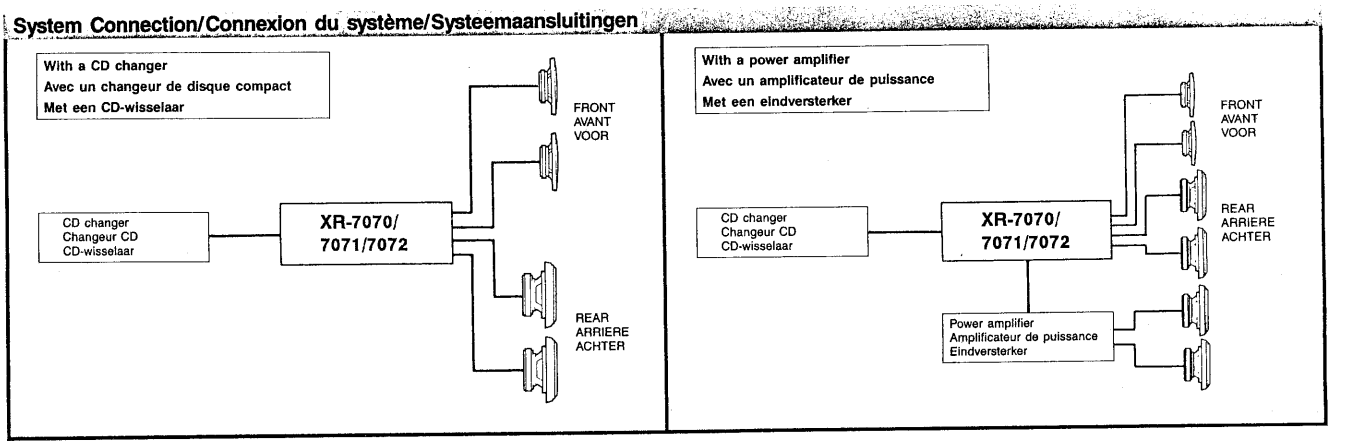
Attention

- Cet appareil est conçu uniquement pour un fonctionnement sur courant continu de 12 volts avec mise à la masse négative.
- Avant d'effectuer les connexions, déconnecter la borne de masse de la batterie de voiture pour éviter des courts-circuits.
- Connecter le fil d'entrée d'alimentation **rouge** uniquement une fois tous les autres fils connectés. S'assurer de le connecter à la borne positive 12 volts qui est énergétisée lorsque la clé de contact est mise sur la position accessoire.
- **Amener tous les fils de masse sur un point commun.**

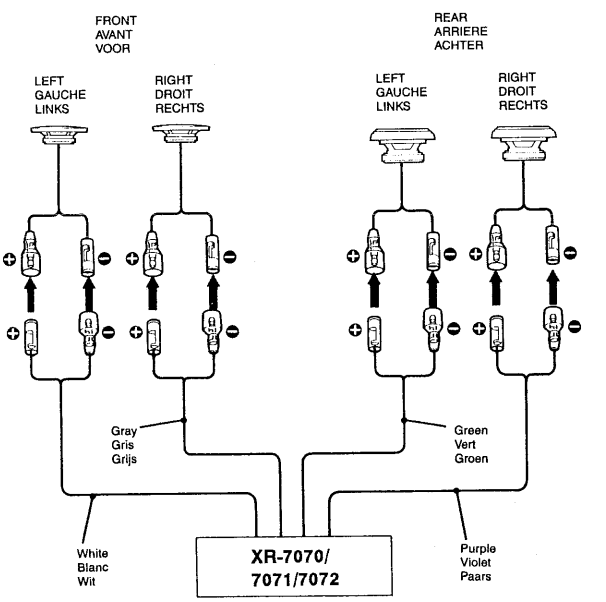
Waarschuwing

- Dit apparaat is ontworpen voor gebruik op gelijkstroom van een 12 Volts auto-accu, negatief geaard.
- Alvorens te beginnen met het maken van aansluitingen, dient de aardklem van de auto-accu te worden losgemaakt. Dit om kortsluiting te voorkomem.
- Sluit de **rode** stroomdraad pas aan nadat alle aansluitingen zijn gemaakt. Zorg ervoor dat deze stroomdraad op de positieve 12 V accu-aansluiting wordt aangesloten. De draad komt dan onder spanning te staan, wanneer de kontaktsleutel wordt omgedraaid.
- **Sluit alle aarddraden op een gemeenschappelijk aardpunt aan.**

System Connection/Connexion du système/Systeemaansluitingen



Speaker Connection/Connexion des haut-parleurs/Aansluiten van de luidsprekers



Notes on speaker connection

- Use speakers with an impedance of 3.2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

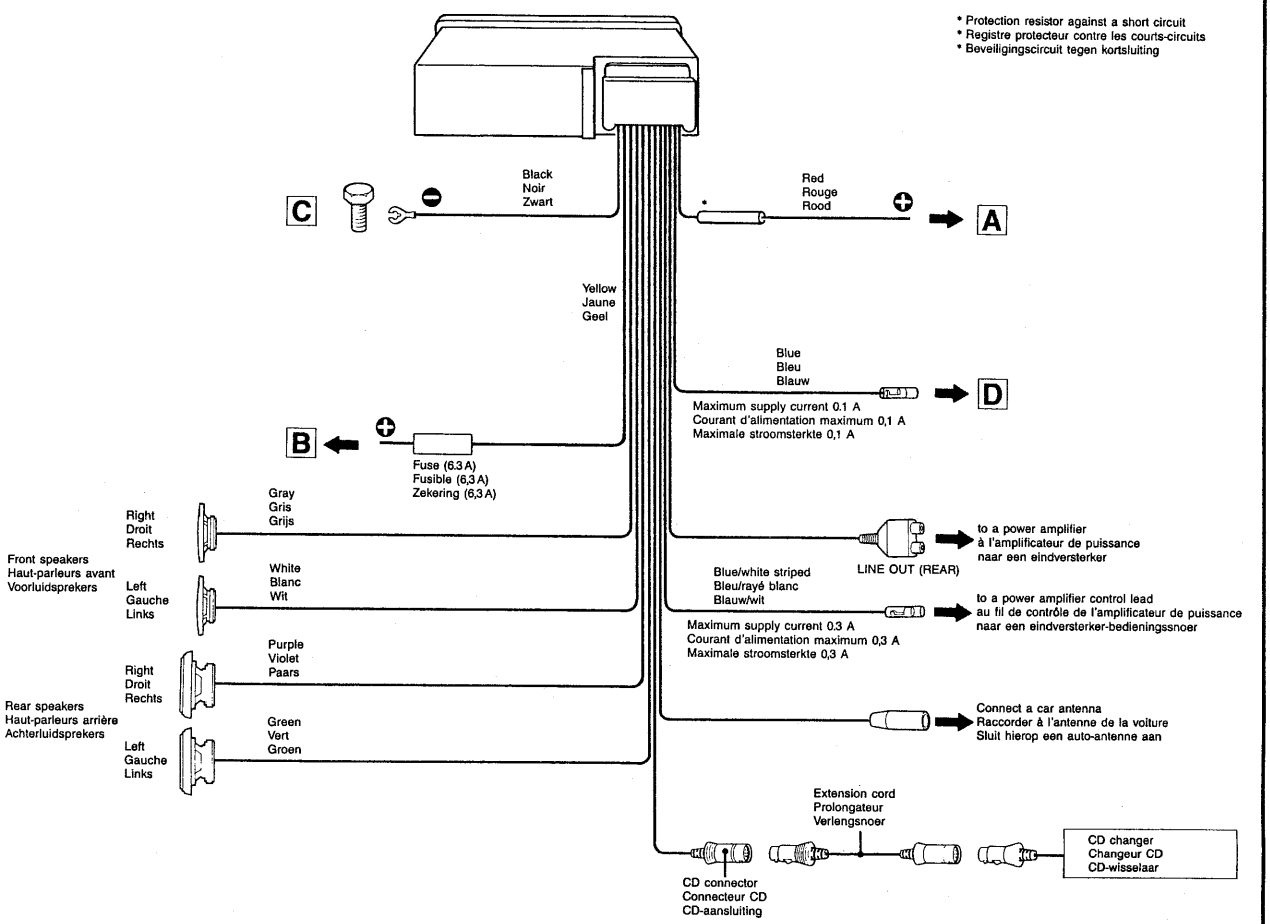
Remarques sur les connexions des haut-parleurs

- Utiliser des haut-parleurs d'une impédance de 3,2 à 8 ohms, et d'une capacité de puissance suffisante; faute de quoi, les haut-parleurs peuvent être endommagés.
- Ne pas raccorder les bornes des haut-parleurs au châssis du véhicule et ne pas raccorder les bornes du haut-parleur droit à celles du haut-parleur gauche.
- Ne pas essayer de raccorder les haut-parleurs en parallèle.

Opmerkingen betreffende het aansluiten van de luidsprekers

- Gebruik luidsprekers met een impedantie van 3,2 tot 8 ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.
- Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter en linker luidspreker niet op elkaar aan.
- Probeer niet de luidsprekers parallel aan te sluiten.

Connection Diagram/Schéma de connexion/Aansluitschema



A to the +12 V power terminal which is energized in the accessory position of the ignition key

B to the +12 V power terminal which is energized at all times

C to a metal part of the car

D to a power antenna relay control box

Notes on the control leads

- The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner or the ATA* function is activated. A power antenna without relay box cannot be used with this unit. For details about the power antenna, refer to the power antenna instruction manual.
- When the power antenna control lead or the power amplifier control lead is in contact with a metal part of the car, the unit cannot be turned on because the protection circuit is activated.

* Automatic Tuner Activation

After completing the connections and mounting the unit into the bracket, press the reset button of this unit. The reset button is effective only when the unit is mounted in the bracket.

A A la borne d'alimentation positive 12 volts qui est énergétisée lorsque la clé de contact est sur la position accessoire.

B A la borne d'alimentation positive 12 volts qui est énergétisée en permanence

C A un point métallique de la voiture

D Au boîtier de contrôle de relais d'antenne motorisée

Remarques sur les fils de contrôle

- Le fil de contrôle de l'antenne motorisée (bleu) fournit une alimentation de courant continu positif de 12 volts lorsque le tuner est mis sous tension ou la fonction ATA* est activée. Une antenne motorisée sans boîtier de relais ne peut être utilisée avec cet appareil. Pour plus de détails sur l'antenne motorisée, se reporter à son mode d'emploi.
- Lorsque le fil de contrôle de l'antenne motorisée ou le fil de contrôle de l'amplificateur de puissance est en contact avec une partie métallique de la voiture, l'appareil ne peut être mis sous tension puisque le circuit de protection est alors activé.

* Automatic Tuner Activation (enclenchement automatique du tuner)

Après avoir terminé les connexions et le montage de l'appareil dans le support, appuyer sur la touche de réinitialisation. Cette touche est opérationnelle uniquement lorsque l'appareil est installé dans le support.

A naar de (+) 12 V accu-aansluiting, die onder spanning komt te staan bij het omdraaien van de kontaktsleutel

B naar de (+) 12 V accu-aansluiting, die altijd onder spanning staat

C Aardingspunt (metalen deel van de auto)

D naar motorantenne-relaishuis

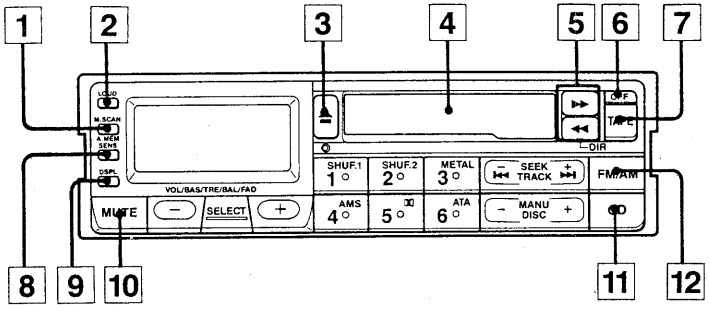
Opmerkingen betreffende de motorantenne-aansluiting en het eindversterkersnoer

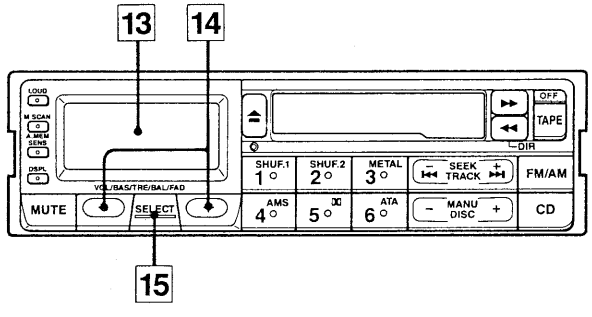
- De motorantenne-aansluiting (blauw) levert (+) 12 V gelijkstroom, wanneer u de tuner of de ATA*-funktie inschakelt. Het is niet mogelijk met dit apparaat een motorantenne zonder relaishuis te gebruiken.
  Raadpleeg de gebruiksaanwijzing van de motorantenne voor nadere bijzonderheden omtrent het gebruik hiervan.
- Het apparaat kan niet ingeschakeld worden indien de motorantenne-aansluiting of het eindversterkersnoer in aanraking zijn met enig metalen deel van de auto, omdat in dit geval het beveiligingscircuit tegen kortsluiting wordt geaktiveerd.

* ATA staat voor Automatic Tuner Activation (automatisch inschakelen van de tuner)

Druk op de terugstelltoets (RESET) van dit apparaat nadat alle aansluitingen zijn gemaakt en het apparaat in de inbouwsleede is gemonteerd. Deze toets kan alleen bediend worden, wanneer het apparaat in de inbouwsleede is gemonteerd.

Location and Function of Controls





Refer to the page in ● for details.

1 **M.SCAN (memory scan)/A.MEM (automatic memory) button** ⓯ ⓰

2 **LOUD (loudness) button**
Press to reinforce bass and treble especially when listening at low volume. To disengage the button, press it again.

3 **⏏ (eject) button**

4 **Cassette insertion door**

5 **◀◀/▶▶ (fast-winding) buttons/DIR (tape transport direction change) buttons** ⓽

6 **OFF button**

7 **TAPE (tape playback) button** ⓼

8 **SENS (sensitivity) button** ⓭

9 **DSPL (display) button** ⓫ ⓲

10 **MUTE button (XR-7070/7071)**
Press to momentarily mute the sound. Press again to restore the same level as before. This button will be canceled also when you press the ⊕ button, or when you press the CD, FM/AM or TAPE button to change the operation mode.

SDK button (XR-7072)

11 **CD (disc play) button** ⓳

12 **FM/AM (radio on/band select) button** ⓬ **(XR-7070/7072)**
FM/MW/LW (radio on/band select) button (XR-7072)

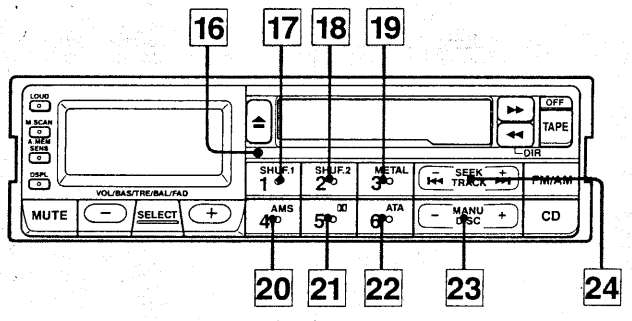
13 **Display window**

14 **⊖ ⊕ (volume/bass/treble/balance/fader control) button**
⊖ ⊕ buttons normally function as the volume control. Adjust the level within three seconds after selecting the desired control mode. Otherwise, the mode goes back to the volume control mode.

15 **SELECT (control mode select) button**
Press to select the desired mode, BAS (bass), TRE (treble), BAL (balance), FAD (fader), or VOL (volume).

Display window	Control mode	⊖ SELECT ⊕	
		Press ⊖	Press ⊕
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speaker volume	To decrease the left-speaker volume
FAD	Fader control	To decrease the rear-speaker volume	To decrease the front-speaker volume
VOL	Volume control	For less volume	For more volume

Location and Function of Controls



16 Reset button

Press this button when you use this unit for the first time and when you have changed the car battery, or when other buttons do not function. The reset button is effective only when the unit is mounted in the bracket.

	During tape playback	During disc play	During radio reception
17	—	**SHUF. 1 (shuffle 1) button** ⑳	**Preset number buttons** ⑯
18	—	**SHUF. 2 (shuffle 2) button** ⑳	
19	**METAL (metal/CrO_2) button** ⑩	—	
20	**AMS (Automatic music sensor) button** ⑩	—	
21	**DD (Dolby NR) button** ⑩	—	
22	**ATA (Automatic tuner activation) button** ⑪ ⑳		
23	—	**DISC (disc change)** ⑱ **/MANU (manual search) button** ⑲	**MANU (manual tuning) button** ⑭
24	—	**TRACK (disc track change) button** ⑱	**SEEK (automatic tuning) button** ⑫

To change the color of illumination
Press [1] while pressing SELECT.

To mute the beep sound
Press [6] while pressing SELECT.
To obtain the beep sound again, press buttons again.

Note on AM Tuning Interval

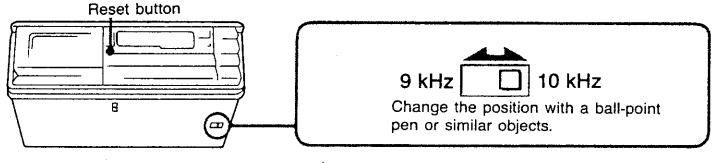
The interval is factory-set to 9 kHz.
If, however, AM frequency allocation might be different from that in the area this car stere is used, change the AM tuning interval.

9 kHz area	European, Asian, African and Oceanian Countries
10 kHz area	North, Central and South America

To change the AM tuning interval

1 Remove the main unit from the bracket.

2 Set the AM tuning interval selector at the bottom of the unit to the proper position. Use a ball-point pen or a similar object.

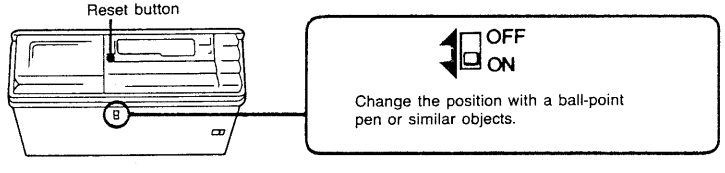


3 Install the main unit to the bracket.

4 Press the reset button after setting the ignition key to the accessory position.

Notes on the Power Select Switch

You can choose illumination mode by changing the power select switch located on the bottom.

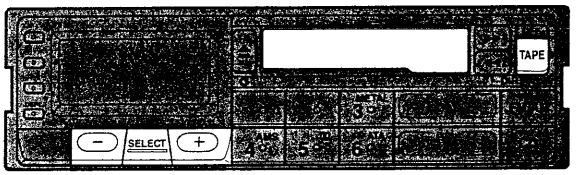


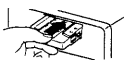
When you set the ignition key to the accessory position

Power select switch	ON	OFF
Illuminate where?	**OFF, TAPE, FM/AM, CD, ⏏ buttons and the cassette insertion door**	**No illumination**

- When you activate the unit, all parts of the panel illuminate, regardless of the position of the switch.
- If your car has no accessory position, we recommend you to set the switch to the OFF position.
- Be sure to press the reset button after changing the position of the switch.

Tape Playback

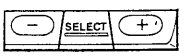


1 

Insert a cassette to start playback.

TAPE

Press TAPE when a cassette is already inserted.

2 

Press to adjust the volume.

Other Operations

To listen to the other side of the cassette

(Press both simultaneously.)

To wind the tape rapidly

Direction indicator	To advance	To rewind
▶	Depress ▶▶	Depress ◀◀
◁	Depress ◀◀	Depress ▶▶

To resume playback, press ▶ or ◀ lightly, which is not depressed.

To take out the cassette

To stop the tape and listen to the radio

FM/AM

To play back the tape again

TAPE

To stop the tape and turn off the unit

OFF

To stop the tape and listen to a disc

CD

Side of the cassette being played back
This unit plays back both sides of the cassette repeatedly. The indicator in the display window shows which side of the cassette is being played back.

Indicator	Side
▶	The side facing upward
◁	The side facing downward

Listening to the CrO_2 (TYPE II) or Metal (TYPE IV) Tapes

Press METAL 3 .

MTL appears in the display window.
To listen to the normal (TYPE I) tapes, press it again.

Listening to Dolby NR-processed Tapes

Press 5 .

Press to activate the B-type Dolby NR system.
Select the same Dolby NR system used for the recorded cassette. The Dolby NR (Noise Reduction) system reduces tape hiss noise in low-level, high-frequency signals.

To Locate the Beginning of a Selection
(Automatic Music Sensor)

1 Press 4 .
2 Press ◀◀ or ▶▶, referring to the following table.

Indicator	Cassette side being played	Desired selection	
		Next selection	Current selection
▶	Side facing upwards	Depress ▶▶ .	Depress ◀◀ .
◁	Side facing downwards	Depress ◀◀ .	Depress ▶▶ .

The desired selection may not be located if ...
— there is a noise in the space between selections.
— the space is less than 4 seconds long.
— the ◀◀ or ▶▶ button is pressed immediately before or after the desired selection, or within the blank space.

Playback may begin in the middle of the selection when AMS is activated, as the followings are treated as blanks:
— a long pause in the selection
— a passage of low frequencies or very low volume
— gradual increase or decrease of volume, as in some classical music.

To Turn on the Radio Automatically While Fast-winding the Tape (ATA function)

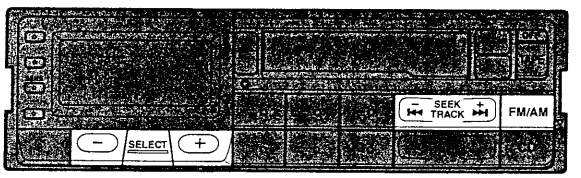
Press ATA 6 .

The tuner turns on automatically when you press the ◀◀ or ▶▶ during tape playback. When you resume the tape playback, the tuner turns off automatically.

To display the frequency indication while the ATA is operating
Press DSPL. The display window shows the frequency which you tuned in last time. In this case, all the tuner operation buttons function in the same way as when you turn on the tuner (except for the FM/AM button).

Note
While locating the beginning of a selection by using the AMS function, the ATA function does not operate.

Automatic Tuning



1 FM/AM

Press to select the desired band, FMI, FMII, FMIII or AM.

The tuner turns on at the same time.

2 SEEK TRACK

Press to start scanning.

⏮ for lower frequencies

⏭ for higher frequencies

The scanning automatically stops when a station is tuned in.

Repeat this step until the desired station is tuned in.

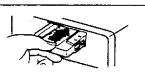
3 SELECT

Press to adjust the volume.

FM has three bands (FMI, FMII, FMIII). Three bands cover the same frequency range. To change the band, press the FM/AM button.

Other Operations

To stop the radio and start tape playback

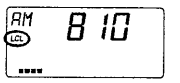
When no cassette is inserted	
When a cassette is already inserted	TAPE

To stop the radio and turn off the unit	OFF
To stop the radio and listen to a disc	CD

When there are too many stations and the scanning stops too frequently during automatic tuning

Press SENS ○.

Only the stations with relatively strong signals can be tuned in.



When the FM stereo program is too weak and noisy

Press SENS ○.

The noise will be reduced.
The sound will be monaural instead.

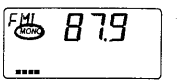
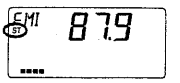


Table below shows the modes of the SENS button

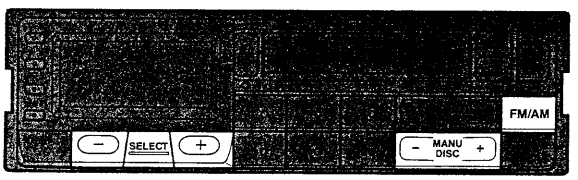
Button press	Mode	Display
First press	Local seek mode	LCL
Second press	Monaural mode	MONO
Third press	Canceled	—

When the FM stereo program of sufficient signal strength is tuned in



The program is automatically received in stereo.

Manual Tuning



1 FM/AM

Press to select the desired band, FMI, FMII, FMIII or AM.

The tuner turns on at the same time.

2 MANU DISC

Press to tune in the desired station.

\- For lower frequencies

\+ For higher frequencies

To change the frequency rapidly, keep the button pressed.

3 SELECT

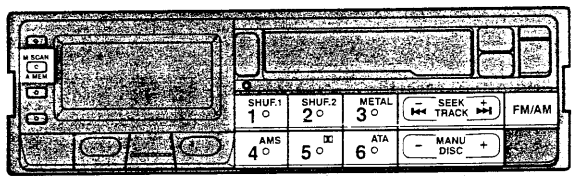
Press to adjust the volume.

Warning
While driving, keep your eyes on the road and use the automatic tuning or the memory preset tuning.

Memory Preset Tuning

You can memorize a total of 24 stations (6 stations for each band), one on each preset number.

Memorizing the Stations Automatically (Automatic Memory Function)



1 FM/AM

Press to select the desired band, FMI, FMII, FMIII or AM.

The tuner turns on at the same time.

2 M.SCAN / A.MEM

Press for more than two seconds.

The unit starts scanning the selected band and memorizes the tuned stations on the preset number button 1 through 6 automatically.

In what way are stations scanned and memorized?
The unit scans the selected band twice. The scanning starts from the displayed frequency. During the first cycle, the unit scans stations with considerably strong signals. During the next cycle, the unit scans all stations that can be received, including weak ones. And for memorizing, if any preset number is indicated in the display window, memorizing starts from this preset number. When you choose FMII and the preset number 3 is displayed in the window, for example, memorizing starts from the preset number 3 on FMII, and stops at the preset number 6 on FMIII.

To Receive the Preset Station

1 FM/AM

Press to select the desired band.

2 SHUF.1 1 — ATA 6

Press lightly to receive the desired station.

Surveying What is Being Broadcasted on the Preset Stations

Press M.SCAN / A.MEM lightly.

Each memorized station will be scanned for five seconds in order. (When the broadcast of the memorized station is too weak, it cannot be received.)

Memorizing Only the Desired Stations Manually

Example: To memorize on the preset number 1

1 FM/AM

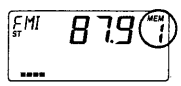
Press to select the desired band.

2 SEEK TRACK or MANU DISC

Press to tune in the desired station.

3 SHUF.1 1

Press for more than two seconds.

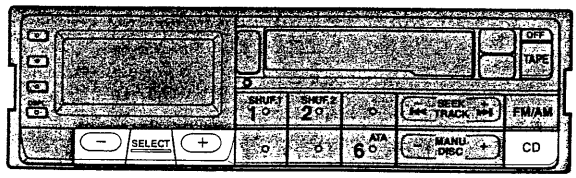


The number of the pressed preset number button will be displayed. MEM indicator appears to show that the station has been memorized. (MEM indicator will disappear in a few seconds.)

Repeat these steps for each preset button.

Important
Every preset number button has only one memory for a band. The previously memorized station will be erased when you enter a new station of the same band on the same preset number button.

Disc Playing (When the optional Sony CD changer is connected)



Before operating, insert a disc magazine with discs into the CD changer.

1	CD	Press to start the disc play.
2	SELECT	Press to adjust the volume.

Other operations

To listen to another disc in the disc magazine

MANU DISC

If you press it for more than 0.5 second, it operates as the manual search.

To stop disc play and start tape playback

When no cassette is inserted

When a cassette is already inserted — TAPE

To stop disc play and ...

To listen to the radio — FM/AM

To turn off the unit — OFF

To display the elapsed time during the disc play
Press DSPL. The elapsed time of the selection is indicated in the display window. To cancel the elapsed time indication, press it again.

Locating the Beginning of a Desired Selection during Disc Playing

To locate the beginning of the selection being played	Press SEEK TRACK.
To locate a previous selection	Keep SEEK TRACK pressed. Release the button at the desired selection.
To locate the next selection	Press SEEK TRACK.
To locate a selection ahead	Keep SEEK TRACK pressed. Release the button at the desired selection.

When the first selection or the last selection of the disc is located, the play begins from the selection.

To search for a particular point in a selection (manual search)

To go ahead at high speed	Keep MANU DISC + pressed. Release the button at the desired point.
To go back at high speed	Keep MANU DISC − pressed. Release the button at the desired point.

The elapsed time of the selection is displayed during the manual search.

Various Plays

To play the selection on the disc in random order (Shuffle play 1)

Press SHUF.1 1 ○. All selections on the disc being played will be played in random order. After playing all selections on the disc, the unit goes to the next disc.

To play the selection on all discs in random order (Shuffle play 2)

Press SHUF.2 2 ○. All selections on all discs in the disc magazine will be played in random order.

To turn on the radio automatically while changing discs (ATA function)

Press ATA 6 ○. The radio is heard automatically while changing discs. Press DSPL to display the frequency indication while the ATA is operating. In this case, all the tuner operation buttons function in the same way as when you turn on the tuner (except for FM/AM button).

To resume normal playback
Press each button again.

Maintenance

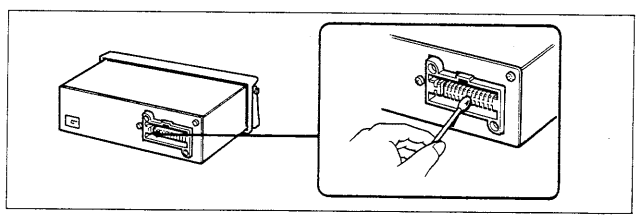
Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.

Warning
Use the specified ampere fuse.
Use of a higher amperage fuse may cause serious damage.

Cleaning the Connector

To keep the best possible sound quality, clean the metallic part of the connector at the rear of the unit periodically using a commercially available head cleaning fluid or rubbing alcohol and a cotton swab.



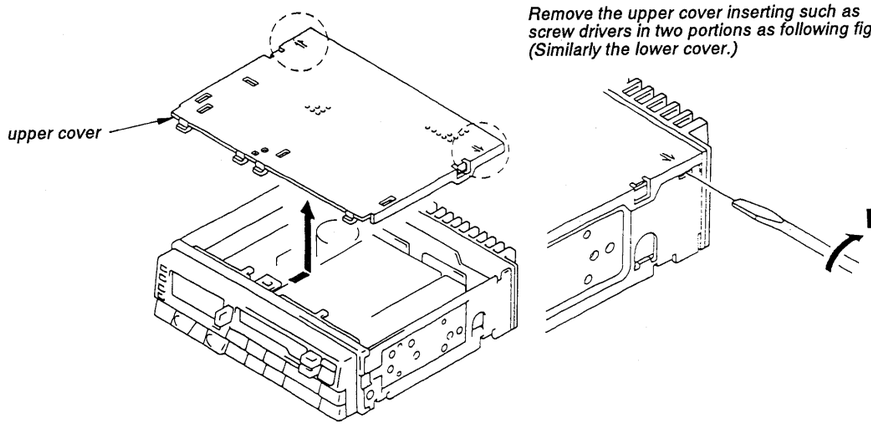
Cleaning the Head and the Tape Path

Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs in playback.
Clean the tape head and the tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

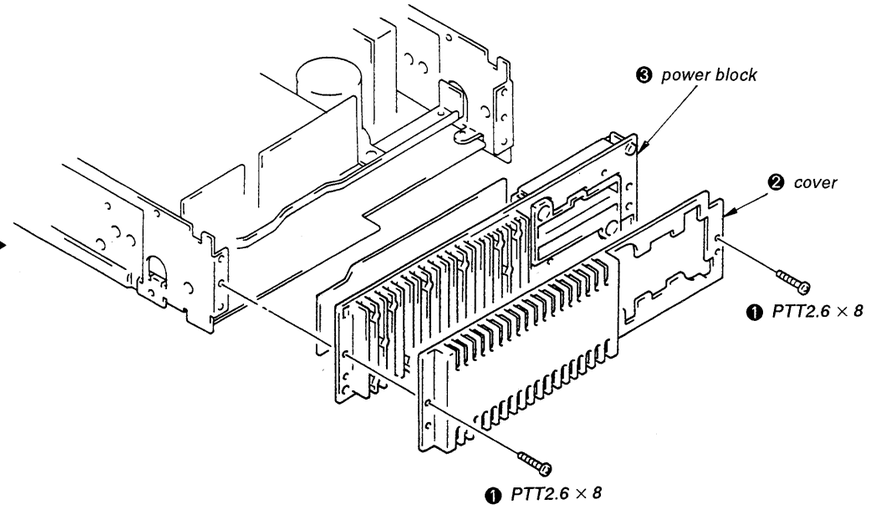
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

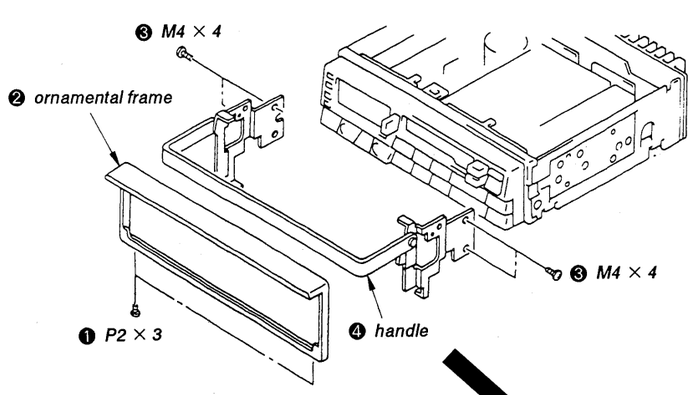
UPPER COVER


upper cover
Remove the upper cover inserting such as screw drivers in two portions as following figure. (Similarly the lower cover.)

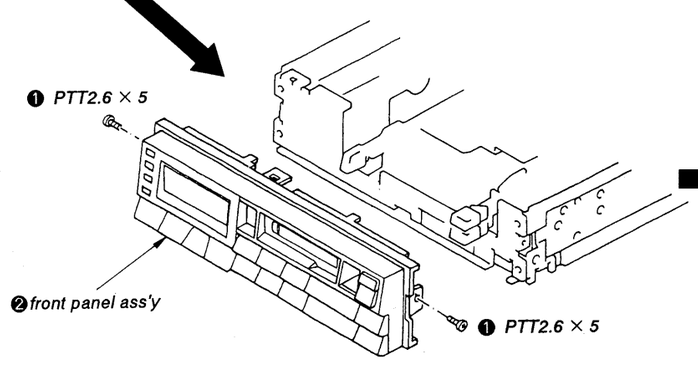
POWER BLOCK



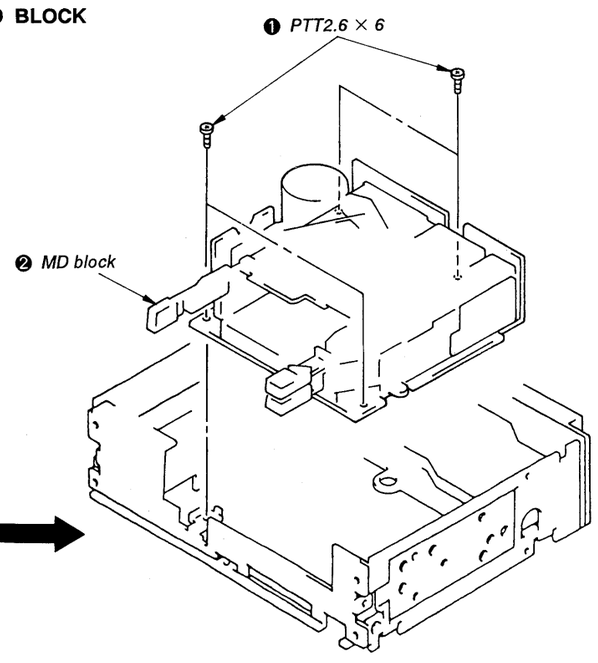
HANDLE



FRONT PANEL ASSEMBLY



MD BLOCK



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

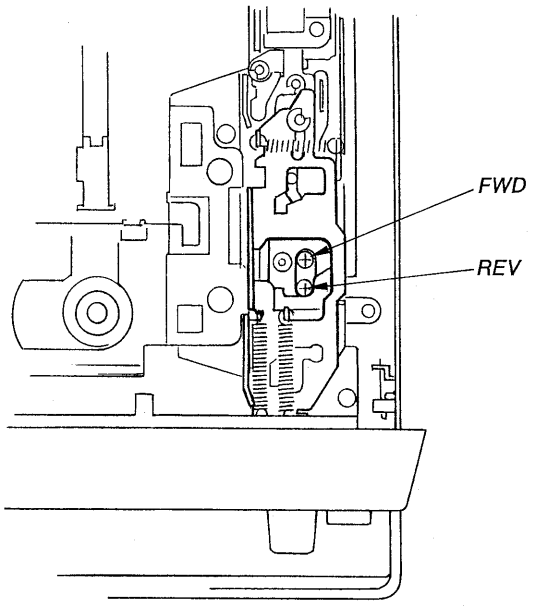
1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head — Pinch roller
   Idler — Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

Torque Measurement

Measure the torque at a supply voltage of 14.4 V DC.

	Torque meter	Meter reading
FWD	CQ-102C	25 to 55 g·cm (0.35 to 0.77 oz·inch)
FF, REW	CQ-201B	55 to 150 g·cm (0.77 to 2.1 oz·inch)
Back tension	CQ-102C	1.5 to 4 g·cm or less (0.02 to 0.05 oz·inch or less)

Adjustment Location:

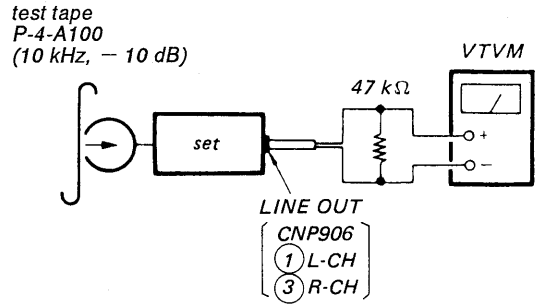


3-2. ELECTRICAL ADJUSTMENTS DECK SECTION

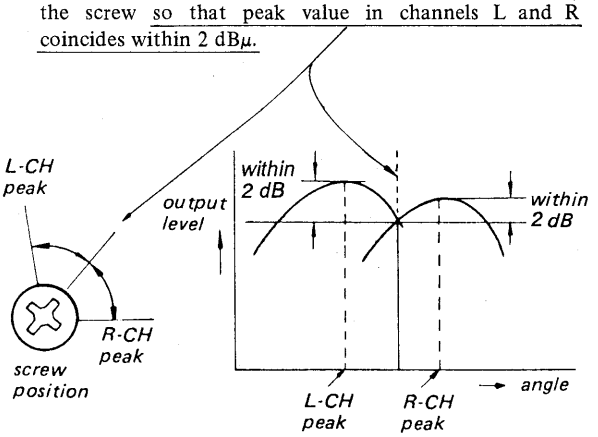
PB Head Vertical Adjustment

Proceudre:

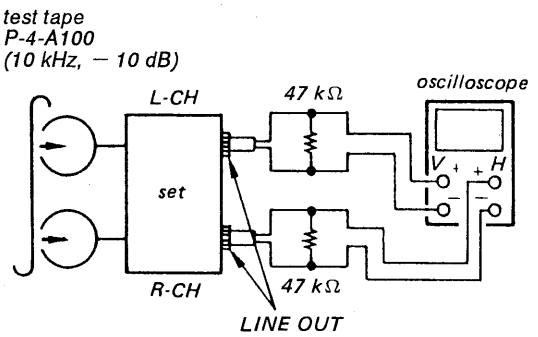
1. Put the set into the FWD PB mode.

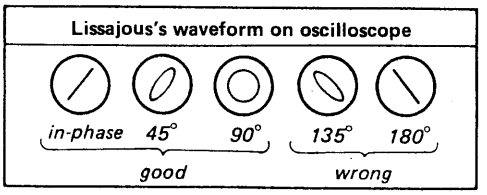


2. Turn the screw and check the output peak value. Adjust the screw so that peak value in channels L and R coincides within 2 dBμ.



3. Check the phase in the PB mode.



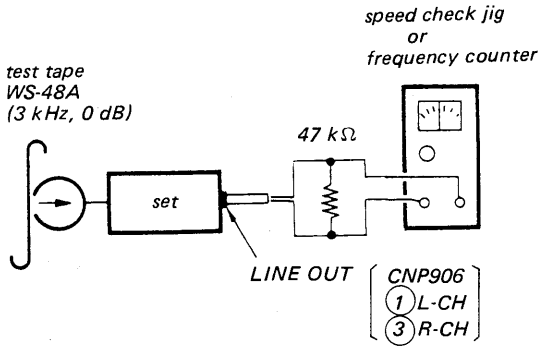


4. Repeat the above adjustment for the REV PB mode.
5. Check that output level difference between FWD PB mode and REV PB mode is within 4 dBμ.

Capstan Motor Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.

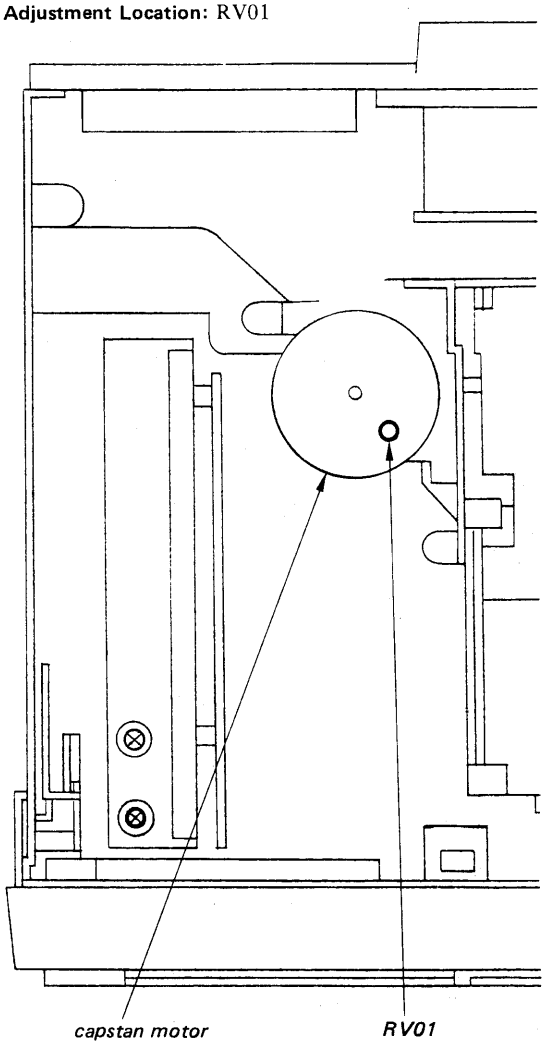


Specification: Constant speed

Speed check jig	Frequency counter
− 1.5 to +0.5%	3,000 $^{+15}_{-45}$ Hz

Adjust so that the frequency difference between the FWD and REV modes is within 1.5% (45 dB).

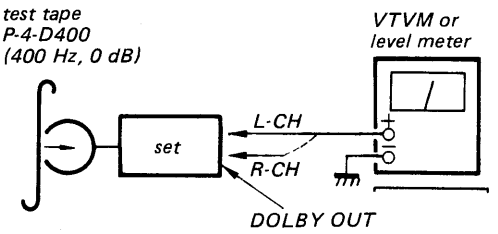
Adjustment Location: RV01



DOLBY NR Level Adjustment

Setting:

DOLBY NR switch: OFF
METAL switch: OFF

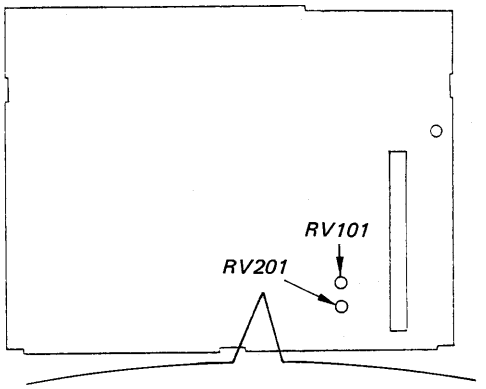


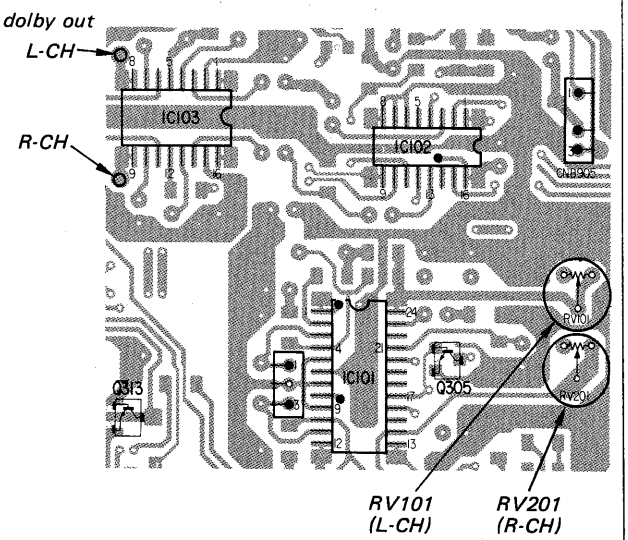
Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) so that VTVM reading is −6 ±1.5 dB.
3. Put the set into the REV PB mode.
4. Adjust RV201 (L-CH) so that VTVM reading is −6 ±1.5 dB.
   (−6 ±1.5 dB: approx. 0.35 to 0.54 V)

Adjustment Location: Main board

[MAIN BOARD] (Conductor Side)



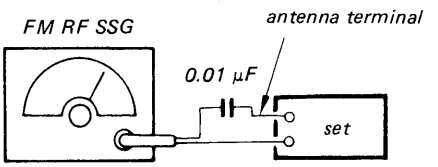


TUNER SECTION

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting:
- Band switch: FM
- MONO switch: ON
- Frequency: 97.9 MHz (XR-7070 (US/Canadian))
  98.0 MHz (XR-7070 (AEP/E)/7071/7072)



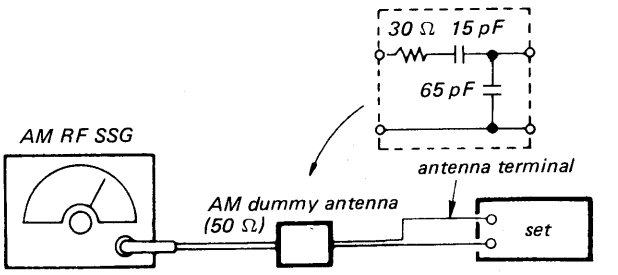
Carrier frequency: 97.9 MHz
Output level: 25 dBμV (18 μV)
Mode: mono, unmodulated

Procedure:
1. Tune in 97.9 MHz. (XR-7070 (US/Canadian))
   Tune in 98.0 MHz. (XR-7070 (AEP/E) /7071/7072)
2. Adjust RV02 so that the VOM reading changes from low to high (5 V reference voltage).
3. When the FM RF SSG's output level is 25 ± 5 dBμV check that the auto scan stopped.

AM Auto Scan/Stop Level Adjustment

Note: This adjustment should be made after FM auto scan stop level adjustment is completed.

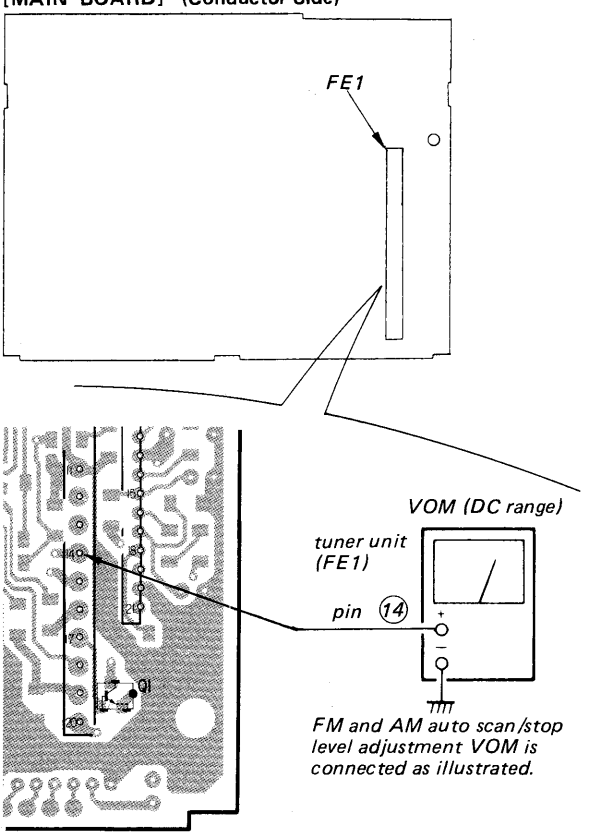
Setting:
- Band switch: AM
- Frequency: 1,000 kHz (XR-7070 (US/Canadian))
  999 kHz (XR-7070 (AEP/E)/7071/7072)



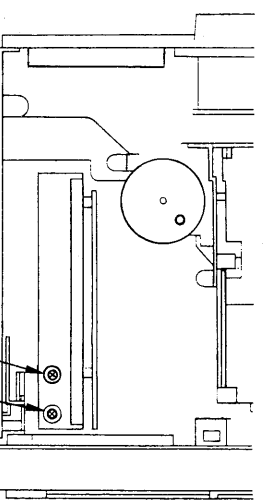
1,000 kHz
30 dBμV (31.8 μV)

Procedure:
1. Turn in 1,000 kHz. (XR-7070 (US/Canadian)
   Turn in 999 kHz. (XR-7070 (AEP/E)/7071/7072)
2. Adjust RV03 so that the VOM reading changes from low to high (5.6 V reference voltage).
3. When the AM RF SSG's output level is 30 ± 5 dBμV check that the auto scan stopped.

[MAIN BOARD] (Conductor Side)



FM and AM auto scan/stop level adjustment VOM is connected as illustrated.

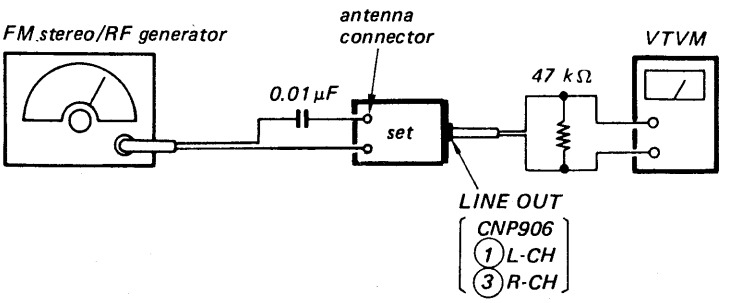


RV03 AM Auto Scan/Stop Level Adjustment
RV02 FM Auto Scan/Stop Level Adjustment

FM Stereo Separation Adjustment

Setting:

Band switch: FM
Frequency: 97.9 MHz



Carrier frequency: *97.9 MHz (XR-7070 (US/Canadian)*
98.0 MHz (XR-7070 (AEP/E)/7071/7072)
Output level: *70 dB μV (3.15 mV)*
Modulation: *main; 1 kHz 33.75 kHz deviation*
sub; 1 kHz, 33.75 kHz deviation
19 kHz pilot; 7.5 kHz deviation

Procedure:

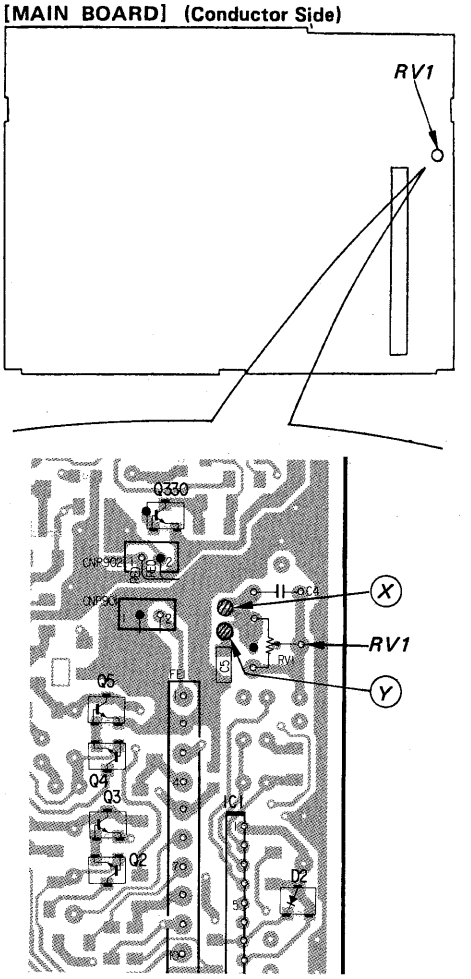
1. Adjust RV1 for a best stereo separation at a LINE OUT level of approximately −10 dB.
   More than 25 dB is good.

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV1 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV1 for minimum reading.

   L-CH Stereo separation: (A) − (B)
   R-CH Stereo separation: (C) − (D)
   The separations of both channels shoul be equal.
2. If the result is not enough, make a solder bridge at (X) position and step back to proceduer 1.
3. If the result is still not good even with the bridge (X), make one at (Y) position in place of (X) and step to procedure 1. again.

Adjustment Location:

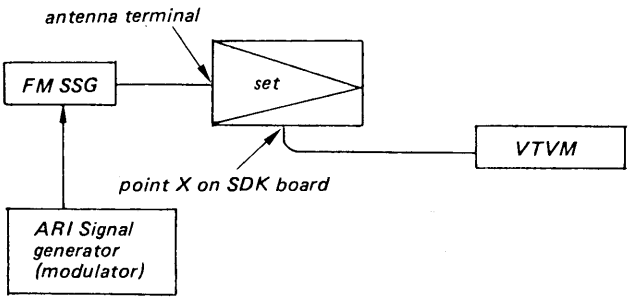
[MAIN BOARD] (Conductor Side)



ARI Level Adjustment (XR-7072 only)

Setting:

Band switch: FM



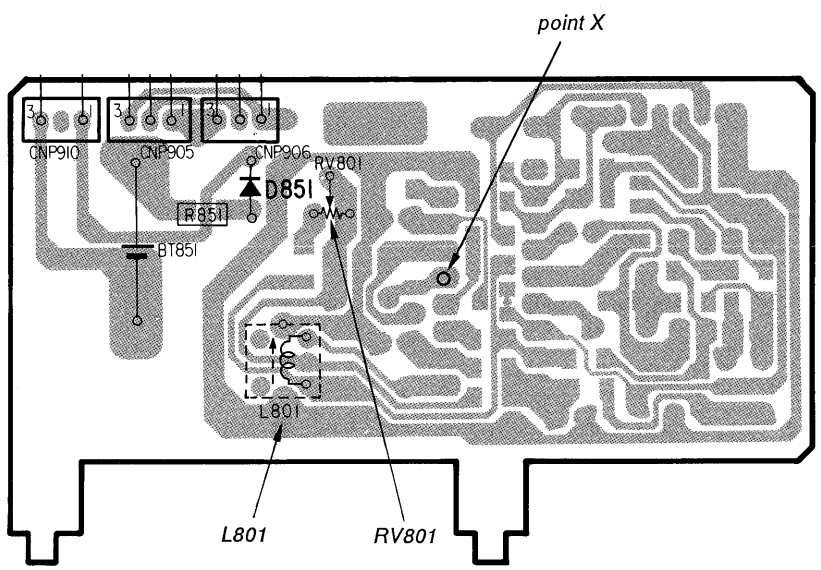
Frequency: Initial frequency
Modulation: ARI carrier only
Output level: 4 mVrms (composit)

Procedure:

1. Adjust L801 so that the level of 125 Hz signal becomes maximum.
2. Adjust RV801 in the same way.

Specification: 1 Vrms or more

Adjustment Location: ARI board conductor side view



SECTION 4
DIAGRAMS

4-1. IC301 μPD75116GF-625-3BE (MICRO COMPUTER)

The μPD75116GF-625-3BE function are described below.

- Description

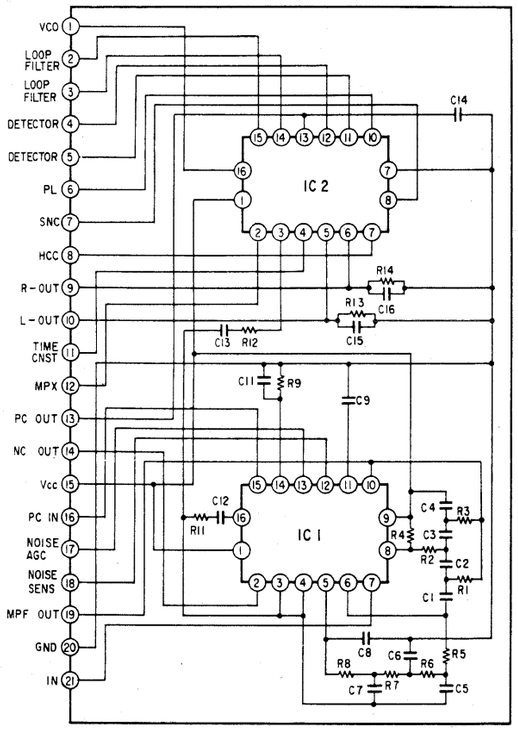
Pin No.	Name	I/O	Description
1	VOL CLK	O	Clock output for electoronic volume. DSP CLOCK. Control signal outputs for electronic volume and DSP (Digital Signal Processor).
2	VOL DATA	O	DATA output for Electronic volume and DSP.
3	MUTE	O	AUDIO MUTE output. High: MUTE ON.
4	(PW AMP MUTE)	(O)	POWER AMP MUTE output. High: MUTE ON. (Not used.)
5	ILL	O	ILLUMI output. High: ILLUMI ON.
6	POWER	O	SYSTEM POWER output. POWER ON/OFF for the whole system of the set, electronic volume, PLL IC, and LCD driver.
7	$\overline{\text{RESET}}$	–	RESET signal
8	X2	–	4.19 MHz
9	X1	–	
10	ACC ON	I	ACC input
11	HANDLE ON	I	HANDLE SW input.
12	$\overline{\text{STEREO}}$/ $\overline{\text{MONO}}$	I/O	STEREO input: When STEREO is selected on FM, "ST" is indicated at low input. MONAURAL output: When FORCED MONO is selected on FM, low output.
13	$\overline{\text{PLL ST IN}}$	I	PLL automatic search stop signal input.
14	PLL DATA	O	PLL DATA output. } Serial data output for PLL cantrol.
15	PLL CLK	O	PLL CLOCK output } Serial data output for PLL cantrol.
16	PLL CE	O	PLL CE output } Serial data output for PLL cantrol.
17	PLL STRQ	O	PLL If figures request signal output. High: Request on.
18	LOCAL	O	LOCAL/DX switching on AM. High: LOCAL output.
19	ANT	O	ANTENNA output. When TUNER, SDK, ATA, are on, high output.
20	DK OUT	O	SDK DK station receiving output. When DK signal is in at SDK on, high output.
21	KEY SEL	O	KEY INPUT SELECT signal. Initial diode switch is in: High output. Key scan: Low output.
22	DOLBY B	O	DOLBY B output. DOLBY ON/OFF: ON at high. Signal is out only when the audio signal is TAPE on MD-POWER is on. Low is out on the others.
23	PL	O	Signal output to change FF-REW position to PLAY position on TAPE AMS detection or so on.

Pin No.	Name	I/O	Description
24	METAL	O	METAL output. METAL ON at high. Signal is out only when MD-POWER is on. Low on MD-POWER OFF.
25	MD POWER	O	MD POWER output. For MD POWER control. High on tape playback state. Low on stop state.
26	Vss	–	GND
27	$\overline{N}$/R	I	Tape Normal/Reverse detection input. Low on normal side.
28	FF•REW	I	High signal is in. When tape is FF/REW position.
29	AMS	I	Tape signal (tune) presence detection input. When there is a signal (a tune), it is high.
30	PACK IN	I	When the cassette is packed in, high signal is in.
31	SDL	I	SDL signal during tuner receiving. Used as SDL signal during BEST TUNING MEMORY. When there is a station, high signal is in.
32	BK	I	On SDK ON, counts BK and indicatets area. Connects to ground when it isn't ARI system.
33	SK	I	When receiving the station has high SK, indicates "SK".
34	DK	I	When receiving the station broadcasting ARI, high signal is in.
35	CD CHECK $\overline{REM•IN}$	I	CD CHECK (use this port both as $\overline{REM-IN}$). High signal is in when CD is connected.
36	CD MUTE $\overline{AUX-MUTE}$	I	CD MUTE (use this port both as $\overline{AUX-MUTE}$). CD MUTE input. MUTE ON at high.
37	DISP SEL REM-OUT	O	DISP SEL (use this port both as REM-OUT). CD changer control signal output.
38	CD DATA OUT	O	Serial data output to CD changer.
39	CD CLK OUT	O	Serial clock output to CD changer.
40	BEEP	O	Buzzer output. (Approx. 2 kHz and 700 Hz, two kinds of signal output.) On Test Mode, 2,048 Hz signal output.
41	CD DATA IN	I	Serial data input from CD changer.
42	–	–	Not used.
43	CD CLK IN	I	Serial clock input from CD changer.
44	BACK UP ON	I	BACK UP input.

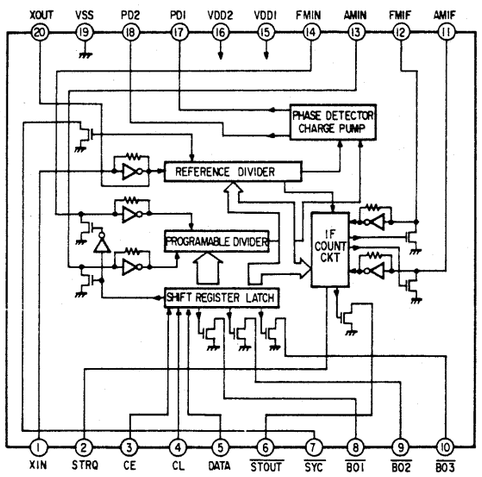
<table>
<tr><th>Pin No.</th><th>Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>45
|
48</td><td>$\overline{KIN3}$
|
$\overline{KIN0}$</td><td>I/O</td><td>Key matrix input. Initial diode switch output.
Activates at low.</td></tr>
<tr><td>49
|
52</td><td>$\overline{KOUT5}$
|
$\overline{KOUT2}$</td><td>I/O</td><td>Key matrix output. Initial diode switch input.
Activates at low.</td></tr>
<tr><td>53, 54</td><td>$\overline{KOUT1, 0}$</td><td>O</td><td>Key matrix output.
Activates at low.</td></tr>
<tr><td>55, 56</td><td>SIG 2, 1</td><td>O</td><td>Audio signal select output.
<table>
<tr><th colspan="2">SOURCE</th><th>SIG2</th><th>SIG1</th></tr>
<tr><td rowspan="2">TAPE</td><td>N</td><td>L</td><td>L</td></tr>
<tr><td>R</td><td>L</td><td>H</td></tr>
<tr><td colspan="2">TUNER</td><td>H</td><td>L</td></tr>
<tr><td colspan="2">CD/AUX</td><td>H</td><td>H</td></tr>
</table></td></tr>
<tr><td>57</td><td>NC</td><td>–</td><td>(Short-circuit to V_{DD})</td></tr>
<tr><td>58</td><td>V_{DD}</td><td>–</td><td>Power source.</td></tr>
<tr><td>59</td><td>COLOR</td><td>O</td><td>Illumination amber/green select.
High: Green
Low: Amber</td></tr>
<tr><td>60</td><td>LCD DATA</td><td>O</td><td rowspan="3">LCD data output.
LCD clock output.
LCD CE output.
} LCD driver control output.</td></tr>
<tr><td>61</td><td>LCD CLK</td><td>O</td></tr>
<tr><td>62</td><td>LCD CE</td><td>O</td></tr>
<tr><td>63</td><td>DSP AO</td><td>O</td><td>DSP (Digital Signal Processor) control signal output.</td></tr>
<tr><td>64</td><td>VOL CE</td><td>O</td><td>Electronic volume control signal output.</td></tr>
</table>

4-2. IC BLOCK DIAGRAMS

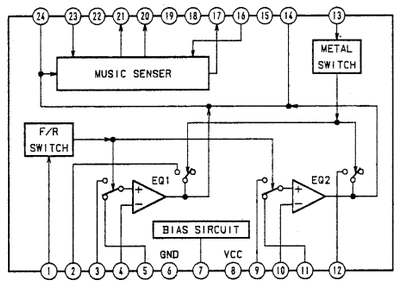
IC1 STK-3400



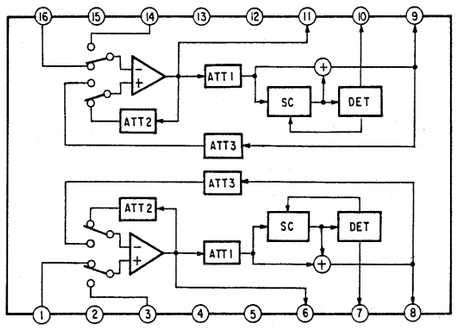
IC2 LM7000



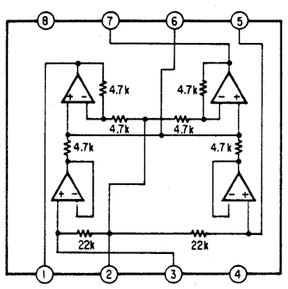
IC101 M51524L, P, FP



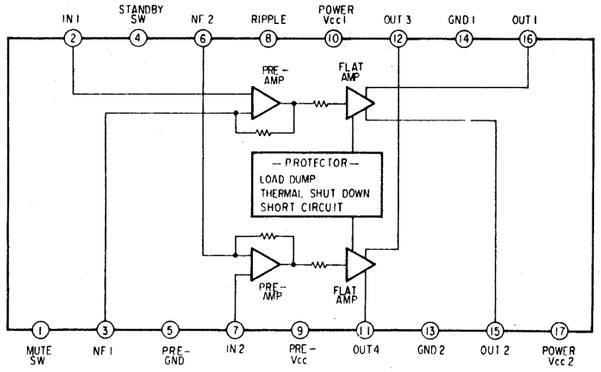
IC103 CXA1102P/M



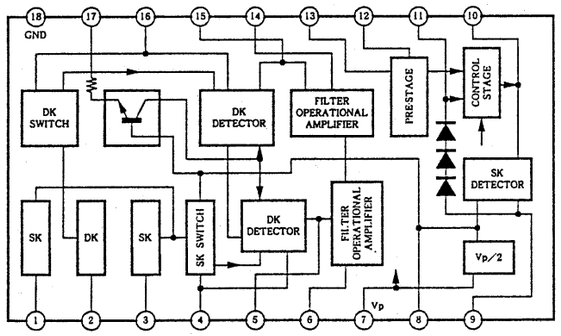
IC111 M5280FP



IC501, 601 TA8205HA

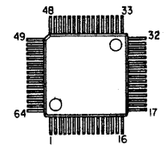


IC801 TDA1579

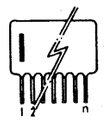


• Semiconductor Lead Layouts

LC7582

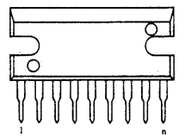


NMX3S920

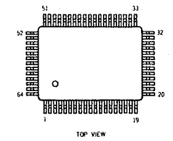


MARKING SIDE VIEW

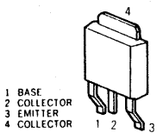
TA8205AH



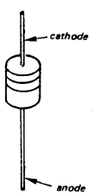
μPD75116GF-625-3BE



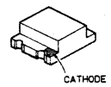
2SD1802FAS



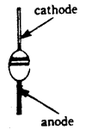
1SS119
RD11ES-B2
RD3.9ES-B2
RD4.7ES-B1
RD4.7ES-B2
RD5.1ES-B1
RD5.6ES-B2
RD6.2EL2
RD6.8ES-B1
RD9.1ES-B2



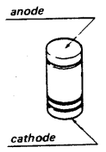
CL-55Y/PG-D



DSA3A4



RLS-4148



4-3. **PRINTED WIRING BOARDS (TYPE A: XR-7070 (US) Main board part number: 1-634-042-11)**

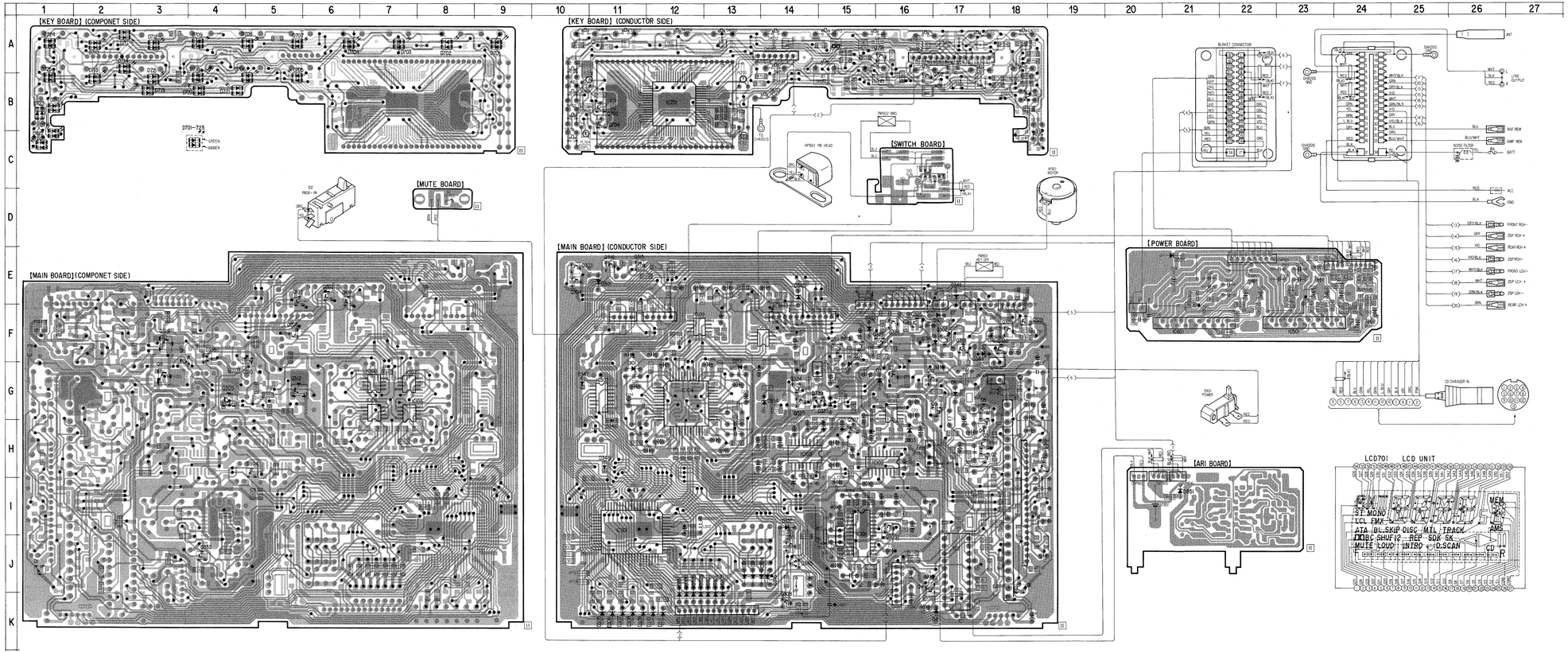
• See page 24 for Semiconductor Lead Layouts.

Note:

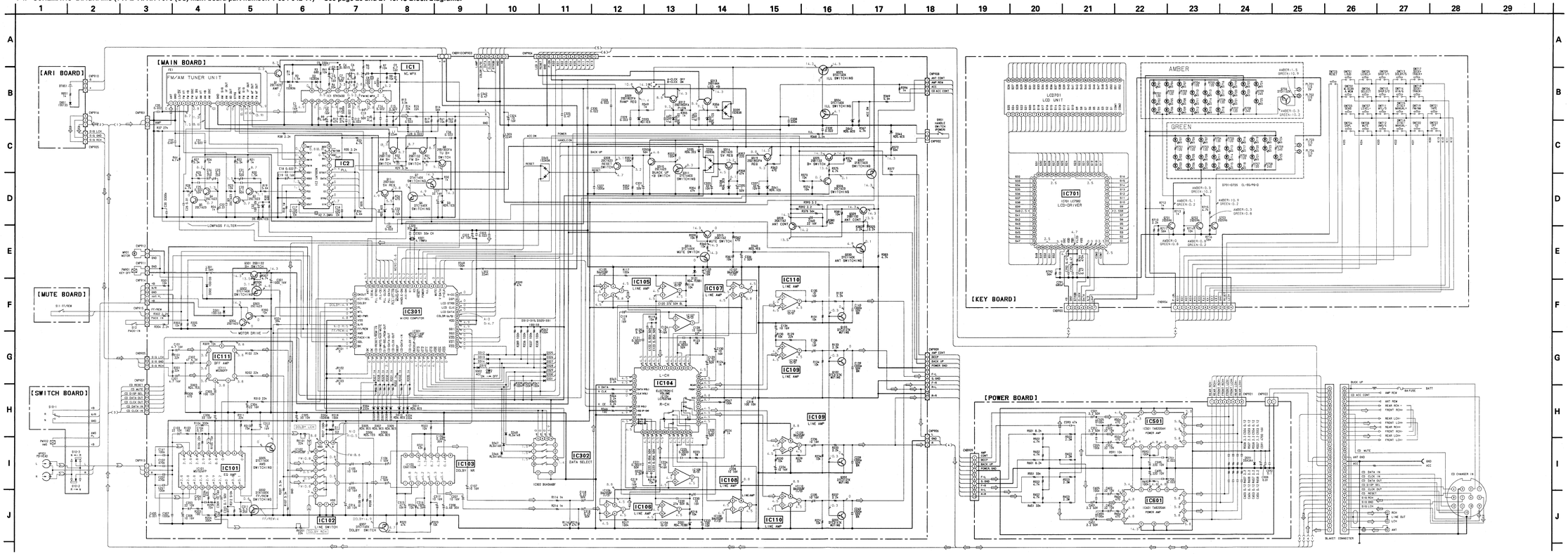
- ◇——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	J-1	D701	A-9	Q1	J-18
D2	H-18	D702	A-8	Q2	H-17
D3	G-16	D703	A-7	Q3	H-17
D4	K-17	D704	A-6	Q4	H-17
D5	G-17	D705	B-5	Q5	G-17
D101	G-11	D706	B-5	Q6	F-3
D201	G-13	D707	A-5	Q7	G-16
D301	E-11	D708	A-5	Q8	G-3
D302	F-17	D709	A-4	Q9	G-17
D303	H-16	D710	A-2	Q10	G-16
D304	H-5	D711	A-2	Q11	J-16
D305	K-11	D712	A-3	Q102	E-6
D306	K-11	D713	B-2	Q103	E-5
D307	K-11	D714	A-2	Q202	E-6
D308	K-11	D715	B-3	Q203	F-5
D309	K-11	D716	C-1	Q301	F-17
D310	K-12	D717	B-1	Q302	F-17
D311	K-12	D718	B-4	Q303	E-10
D312	J-13	D719	B-3	Q304	E-10
D313	J-13	D720	B-4	Q305	I-16
D314	J-13	D721	B-4	Q307	H-15
D315	J-14	D722	C-1	Q308	K-14
D325	J-13	D723	B-1	Q309	G-4
D326	J-13	D724	A-1	Q310	G-5
D327	J-13	D725	B-1	Q311	F-15
D328	J-12	D851	I-21	Q312	G-5
D329	J-12			Q313	J-14
D330	J-12	IC1	H-18	Q314	F-15
D331	J-12	IC2	J-17	Q315	E-11
D333	G-15	IC101	I-15	Q316	E-11
D334	G-14	IC102	H-16	Q319	F-3
D335	G-15	IC103	H-14	Q323	G-14
D336	F-4	IC104	G-12	Q324	G-14
D337	I-14	IC105	G-7	Q325	F-16
D338	F-15	IC106	G-7	Q326	F-15
D339	G-14	IC107	G-7	Q327	F-16
D340	E-14	IC108	G-7	Q328	F-18
D341	F-16	IC109	F-12	Q329	F-18
D342	E-17	IC110	F-14	Q330	F-18
D344	F-17	IC111	G-16	Q332	J-4
D345	J-14	IC301	I-11	Q701	A-16
D346	G-11	IC302	G-11	Q702	B-16
D347	G-10	IC501	F-23	Q703	B-11
D348	H-11	IC601	F-21	Q704	B-11
D591	E-21	IC701	B-12		



4-4. SCHEMATIC DIAGRAMS (TYPE A: XR-7070 (US) Main board part number: 1-634-042-11) • See page 20 and 21 for IC Block Diagrams.



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▲ : nonflammable resistor.
- ▭ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regurated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark :FM or PLAY
  ( ) :AM
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ▷ : FM
  ▷ : PB
  ▷ : CD

4-5. PRINTED WIRING BOARDS (TYPE B: XR-7070 (Canadian/AEP/E)/7071/7072) and XR-7070 (US) Main board part number: 1-634-042-13)

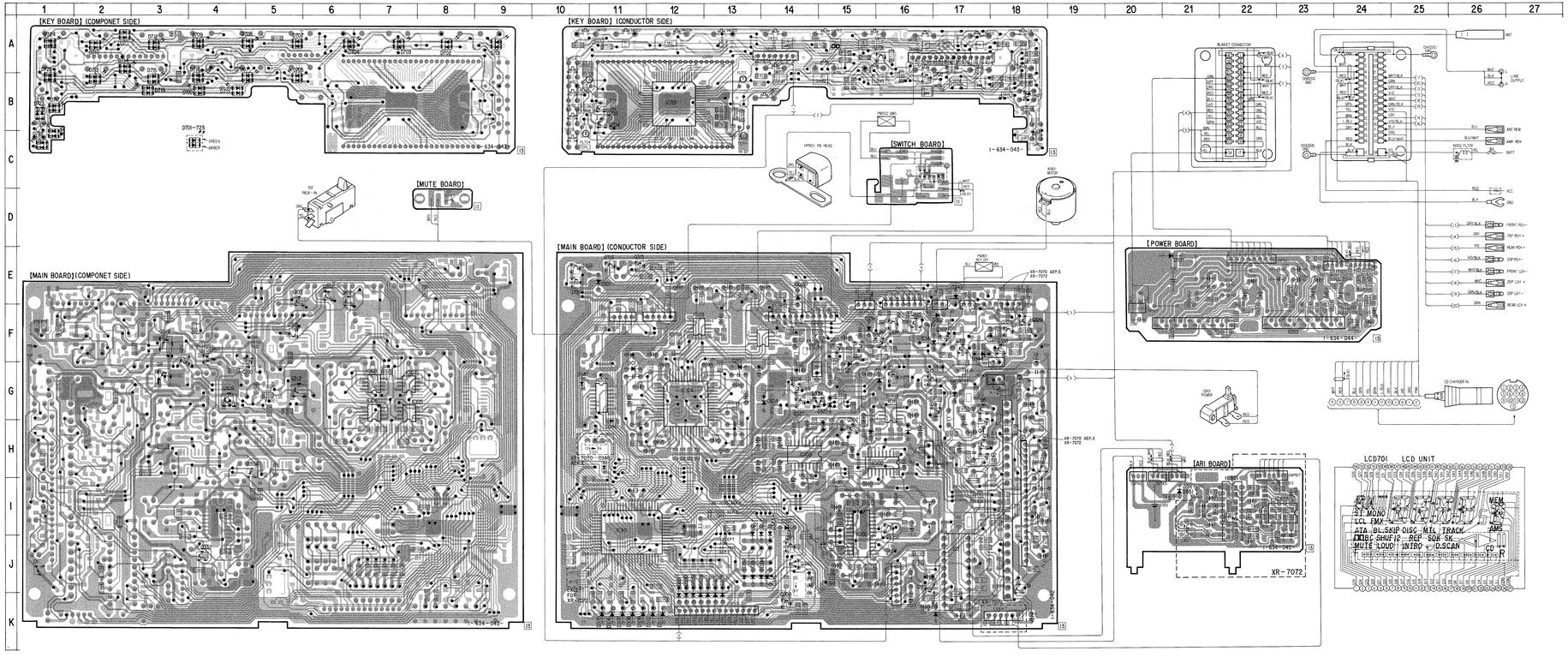
• See pages 24 for Semiconductor Lead Layouts.

Note:

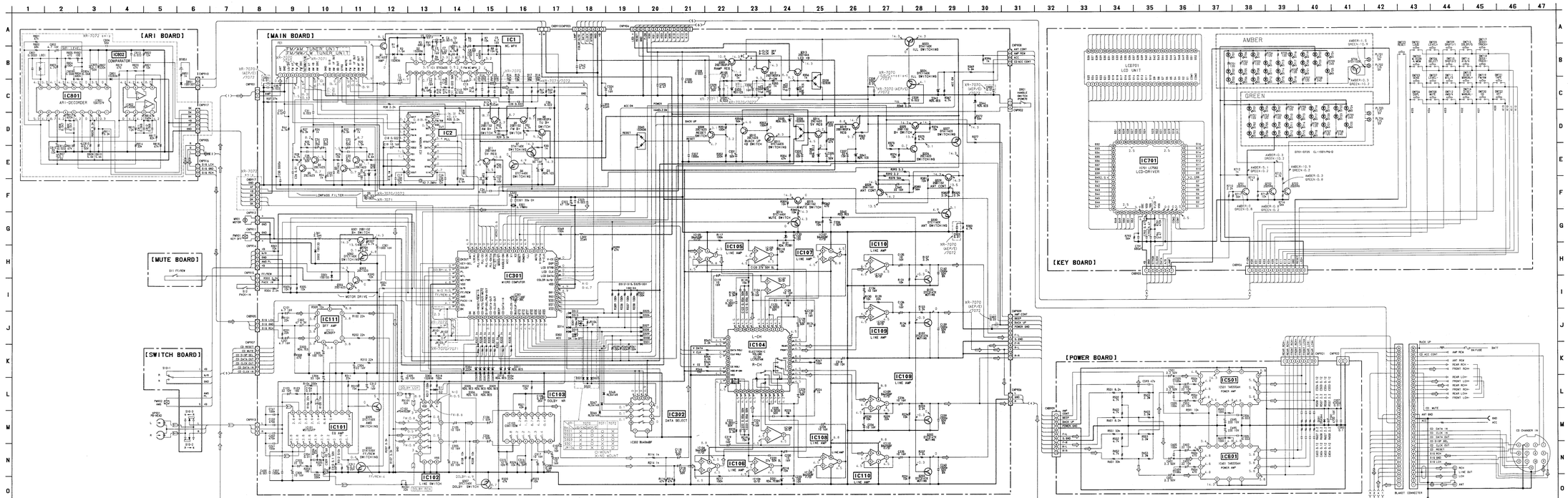
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	J-1	D701	A-9	Q1	J-18
D2	H-18	D702	A-8	Q2	H-17
D3	G-16	D703	A-7	Q3	H-17
D4	K-17	D704	A-6	Q4	H-17
D5	G-17	D705	B-5	Q5	G-17
D101	G-11	D706	B-5	Q6	F-3
D201	G-13	D707	A-5	Q7	G-16
D301	E-11	D708	A-5	Q8	G-3
D302	F-17	D709	A-4	Q9	G-17
D303	H-16	D710	A-2	Q10	G-16
D304	H-5	D711	A-2	Q11	J-16
D305	K-11	D712	A-3	Q102	E-6
D306	K-11	D713	B-2	Q103	E-5
D307	K-11	D714	A-2	Q202	E-6
D308	K-11	D715	B-3	Q203	F-5
D309	K-11	D716	C-1	Q301	F-17
D310	K-12	D717	B-1	Q302	F-17
D311	K-12	D718	B-4	Q303	E-10
D312	J-13	D719	B-3	Q304	E-10
D313	J-13	D720	B-4	Q305	I-16
D314	J-13	D721	B-4	Q307	H-15
D315	J-14	D722	C-1	Q308	K-14
D321	I-13	D723	B-1	Q309	G-4
D322	I-13	D724	A-1	Q310	G-5
D323	I-14	D725	B-1	Q311	F-15
D325	J-13	D801	I-22	Q312	G-5
D326	J-13	D851	I-21	Q313	J-14
D327	J-13			Q314	F-15
D328	J-12	IC1	H-18	Q315	E-11
D329	J-12	IC2	J-17	Q316	E-11
D330	J-12	IC101	I-15	Q319	F-3
D331	J-12	IC102	H-16	Q323	G-14
D333	G-15	IC103	H-14	Q324	G-14
D334	G-14	IC104	G-12	Q325	F-16
D335	G-15	IC105	G-7	Q326	F-16
D336	F-4	IC106	G-7	Q327	F-16
D337	I-14	IC107	G-7	Q328	F-18
D338	F-15	IC108	G-7	Q329	F-18
D339	G-14	IC109	F-12	Q330	F-18
D340	E-14	IC110	F-14	Q332	J-4
D341	F-16	IC111	G-16	Q701	A-16
D342	E-17	IC301	I-11	Q702	B-16
D344	F-17	IC302	C-11	Q703	B-11
D345	J-14	IC501	F-23	Q704	B-11
D346	G-11	IC601	F-21		
D347	G-10	IC701	B-12		
D348	H-11	IC801	I-22		
D591	E-21	IC802	I-23		



4-6. SCHEMATIC DIAGRAM (TYPE B: XR-7070 (Canadian/AEP/E)/7071/7072) and XR-7070 (US) Main board part number: 1-634-042-13) • See pages 20 and 21 for IC Block Diagrams.



Note:

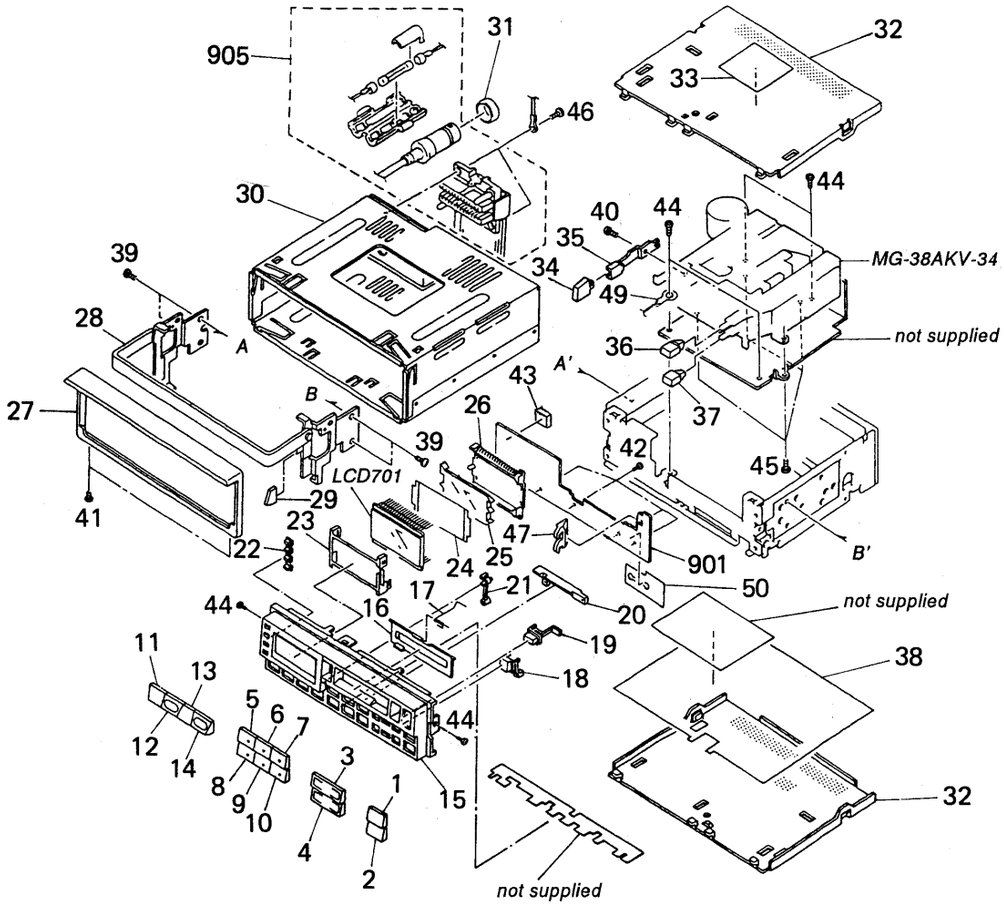
- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : B + Line.
- : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regurated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark :FM or PLAY
  ( ) : AM, LW or MW
  [ ] : MW
  < > : LW
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : FM
  : PB
  : CD

SECTION 5
EXPLODED VIEWS

NOTE:

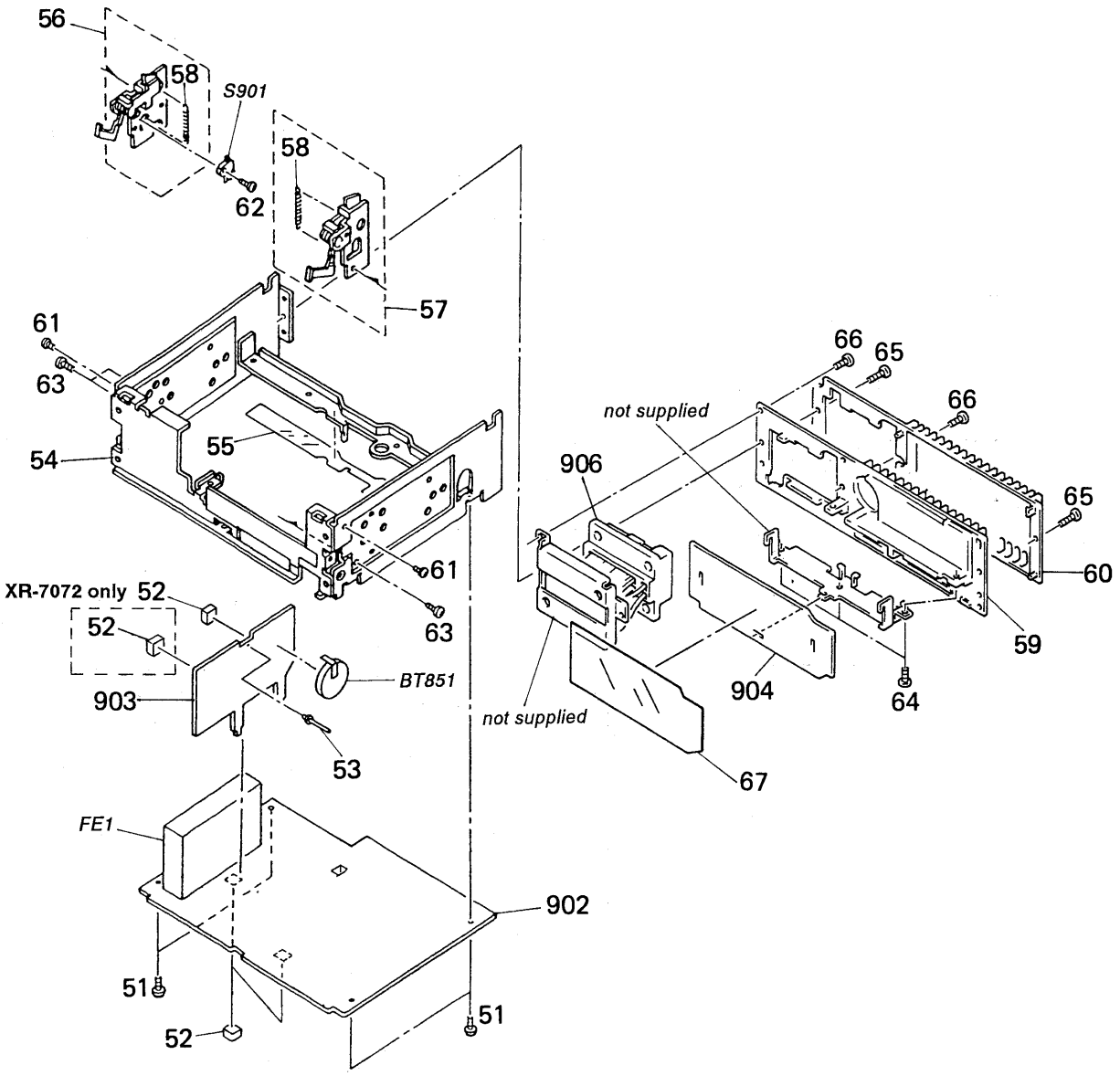
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

(1) FRONT PANEL SECTION



No.	Part No.	Description	Remarks
1	3-349-472-61	(7070/7072)...BUTTON (M:N1)(FM/AM)	
	3-349-472-71	(7071).....BUTTON (M:N1)(FM/MW/LW)	
2	3-349-474-61	BUTTON (RD:N1)(CD)	
3	3-357-075-01	BUTTON (M:S2)(SEEK,TRACK)	
4	3-357-075-11	BUTTON (M:S2)(MANU,DISK)	
5	3-349-496-21	BUTTON (M:N1P)(SHUF,1)	
6	3-349-496-31	BUTTON (M:N1P)(SHUF,2)	
7	3-349-496-41	BUTTON (M:N1P)(METAL,3)	
8	3-349-496-51	BUTTON (M:N1P)(AMS,4)	
9	3-349-471-71	BUTTON (M:N1P)(DOLBY,5)	
10	3-349-496-11	BUTTON (M:N1P)(ATA,6)	
11	3-357-071-01	(7070/7071)...BUTTON (MUTE)	
	3-357-071-11	(7072).....BUTTON (SDK)	
12	3-357-072-01	BUTTON (LEVEL,-)	
13	3-357-073-01	BUTTON (SELECT)	
14	3-357-074-01	BUTTON (LEVEL,+)	
15	3-357-070-01	PANEL, FRONT	
16	3-357-083-01	(7070)...DOOR, CASSETTE	
	3-357-083-11	(7072)...DOOR, CASSETTE	
	3-357-083-21	(7071)...DOOR, CASSETTE	
17	3-349-454-01	SPRING (C DOOR), TORSION	
18	3-357-077-01	BUTTON (TAPE)	
19	3-357-076-01	BUTTON (OFF)	
20	3-357-084-01	PLATE (C DOOR), LIGHT GUIDE	
21	3-357-078-01	BUTTON (RESET)	
22	3-357-082-01	BUTTON (4 GANG) (W)	
23	3-357-091-01	PLATE (LCD), GROUND	
24	3-349-440-11	SHEET (REFLECTOR)	
25	*3-357-086-01	PLATE (LCD), LIGHT GUIDE	
26	*3-357-087-01	HOLDER (LCD)	
27	3-344-564-01	FRAME, ORNAMENTAL	
28	X-3344-508-1	HANDLE ASSY	
29	3-344-526-02	BUTTON (RELEASE)	
30	*X-3344-509-3	BRACKET ASSY	
31	3-566-347-00	COVER (A), CONNECTOR	
32	*3-353-402-51	COVER	
33	*3-357-095-01	(7070(US)).....LABEL, MODEL NUMBER(U)	
	*3-362-782-01	(7070(AEP,E))....LABEL, MODEL NUMBER(AE)	
	*3-362-783-01	(7071).....LABEL, MODEL NUMBER(AE)	
	*3-362-784-01	(7072).....LABEL, MODEL NUMBER(AE6)	
	*3-363-354-01	(7070(Canadian))..LABEL, MODEL NUMBER(CA)	
34	3-357-081-01	BUTTON (EJECT)	
35	*3-357-092-01	LEVER (ELECT)	
36	3-357-079-01	BUTTON (FF)	
37	3-357-080-01	BUTTON (REW)	
38	*3-344-560-01	(7070(US,Canadian)/7071/7072) ...INSULATOR (3)	
	*3-344-560-41	(7070(AEP,E)).....INSULATOR (3)	
39	3-344-561-21	SCREW (M4X4)	
40	4-885-599-00	SCREW, FITTING, REINFORCEMENT	
41	7-627-553-38	SCREW, PRECISION +P 2X3	
42	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
43	9-911-841-XX	CUSHION SP	
44	7-621-770-87	SCREW +PTT 2.6X5 (S)	
45	7-621-773-86	SCREW +PTT 2.6X4 (S)	
46	7-682-652-09	SCREW +PSW 3X16	
47	3-357-085-01	PLATE (F/R), LIGHT GUIDE	
49	7-623-507-01	LUG, 2.6	
50	*3-358-654-01	SHEET (KEY), INSULATING	
901	*A-3270-740-A	MOUNTED PCB (B), KEY	
905	1-575-559-11	(7070(US,Canadian))......CORD, CONNECTOR	
	1-575-559-22	(7070(AEP,E)/7071/7072)..CORD, CONNECTOR	
LCD701	1-808-975-11	DISPLAY PANEL, LIQUID CRYSTAL	

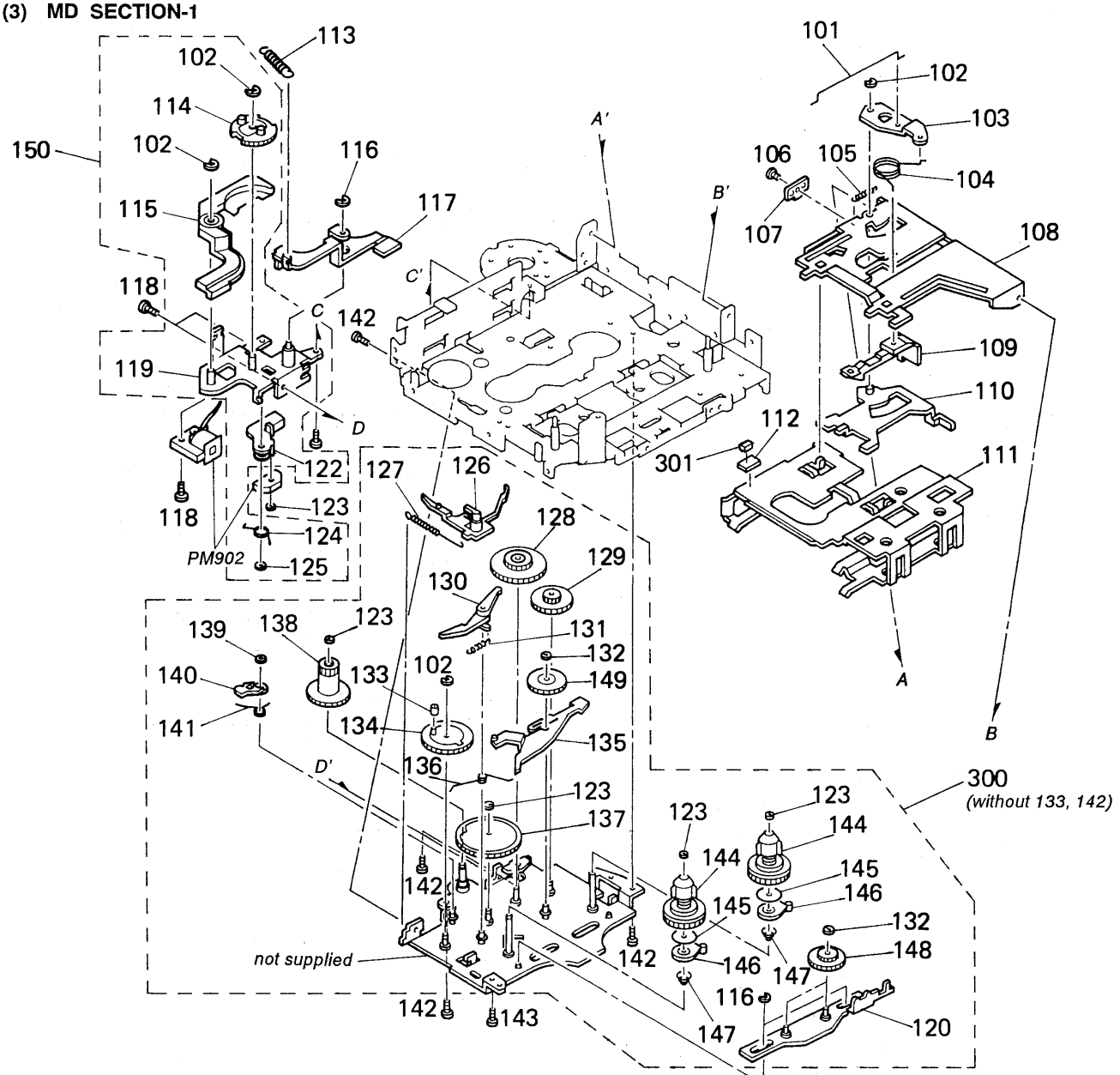
(2) CHASSIS SECTION



No.	Part No.	Description	Remarks
51	3-344-501-11	SCREW (+ PTT 3X8), GROUND POINT	
52	9-911-841-XX	CUSHION, CASSETTE LID	
53	*3-847-723-00	PIN, LEAD	
54	*X-3344-517-1	CHASSIS ASSY	
55	*3-357-098-01	INSULATOR (CHASSIS)	
56	X-3344-502-1	LOCK ASSY (LEFT)	58
57	X-3344-503-1	LOCK ASSY (RIGHT)	58
58	3-645-189-00	SPRING, TENSION	
59	*3-357-093-01	HEAT SINK	
60	*3-357-097-01	COVER	
61	7-627-553-38	SCREW, PRECISION +P 2X3	
62	7-621-283-00	SCREW +P 2X5	
63	7-621-773-86	SCREW +PTT 2.6X4 (S)	
64	7-685-132-19	SCREW +P 2.6X5 TYPE2 SLIT	
65	7-621-770-XX	SCREW +PTT 2.6X8 (S)	

No.	Part No.	Description	Remarks
66	7-682-547-04	SCREW +PTT 3X6 (S)	
67	*3-358-653-01	SHEET (POWER), INSULATING	
902	*A-3222-037-A	(7070(US,Canadian))..PC BOARD ASSY, MAIN	
	*A-3222-153-A	(7071).....PC BOARD ASSY, MAIN	
	*A-3222-171-A	(7072).....PC BOARD ASSY, MAIN	
	*A-3222-187-A	(7070(AEP,E))...PC BOARD ASSY, MAIN	
903	*A-3273-192-A	(7072).....MOUNTED PCB, ARI	
	*1-634-045-11	(7070/7071)...PC BOARD, ARI	
904	*A-3271-491-A	MOUNTED PCB, POWER	
906	1-575-560-11	CORD, CONNECTOR	
BT851	1-528-225-31	BATTERY, LITHIUM	
FE1	1-465-141-11	(7071).....TUNER UNIT (FM/MW/LW)	
FE1	1-465-405-11	(7070/7072)...TUNER UNIT (FM/AM)	
S901	1-570-771-11	SWITCH (POWER)	

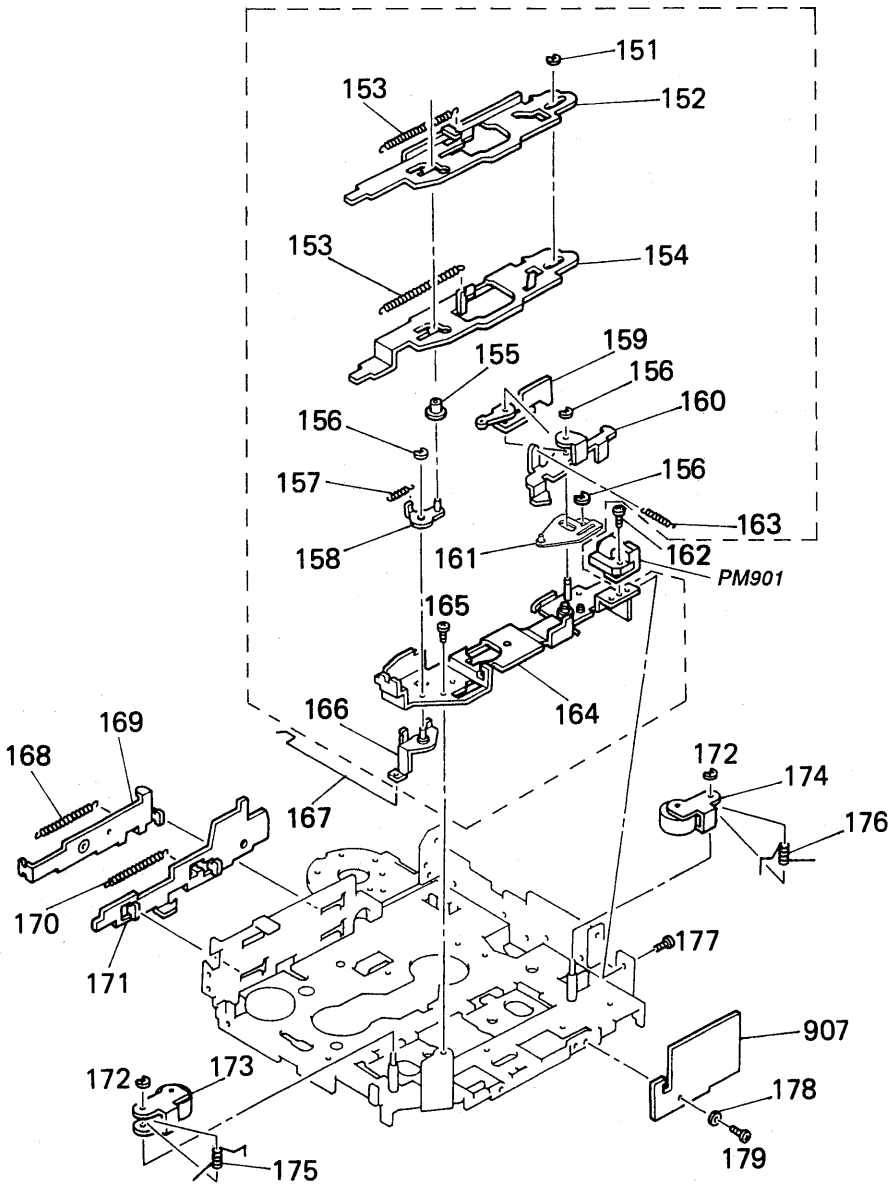
(3) MD SECTION-1



No.	Part No.	Description	Remarks
101	3-392-969-01	LINK, RETURN	
102	7-624-104-04	STOP RING 2.0, TYPE -E	
103	*3-392-932-01	PLATE, CENTER	
104	3-392-961-01	SPRING (B)	
105	3-392-953-01	SPRING	
106	7-621-772-00	SCREW +B 2X3	
107	*3-397-416-01	PLATE, SWITCH	
108	*3-392-973-01	HANGER, CASSETTE	
109	3-392-972-01	HOOKER, TAPE	
110	*3-392-921-01	LOCK ASSY, EJECT CAM	
111	*3-392-977-01	HOLDER, CASSETTE	
112	*3-392-968-01	CUSHION, C.H	
113	3-397-436-01	SPRING, STAND-BY	
114	3-397-411-01	GEAR ASSY, STAND-BY	
115	3-397-462-01	ARM, REVERSE LOCK	
116	7-624-102-04	STOP RING 1.5, TYPE -E	
117	*3-397-405-01	CAM ASSY, STAND-BY	
118	4-908-792-31	SCREW (B2) (M2X4), TAPPING	
119	*3-397-404-01	BRACKET ASSY, SOLENOID	
120	*3-397-402-01	ARM (C) ASSY, F.R	
121	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
122	*3-397-406-01	LOCK ASSY, STAND-BY GEAR	
123	3-676-387-00	POLY-SLIDER (DIA.1.6)	
124	3-397-441-01	SPRING, STAND-BY GEAR LOCK	
125	3-570-615-11	POLY-WASHER (DIA.1.2)	
126	3-397-460-01	RATCHET	
127	3-392-959-01	SPRING	
128	3-397-420-01	GEAR (B)	

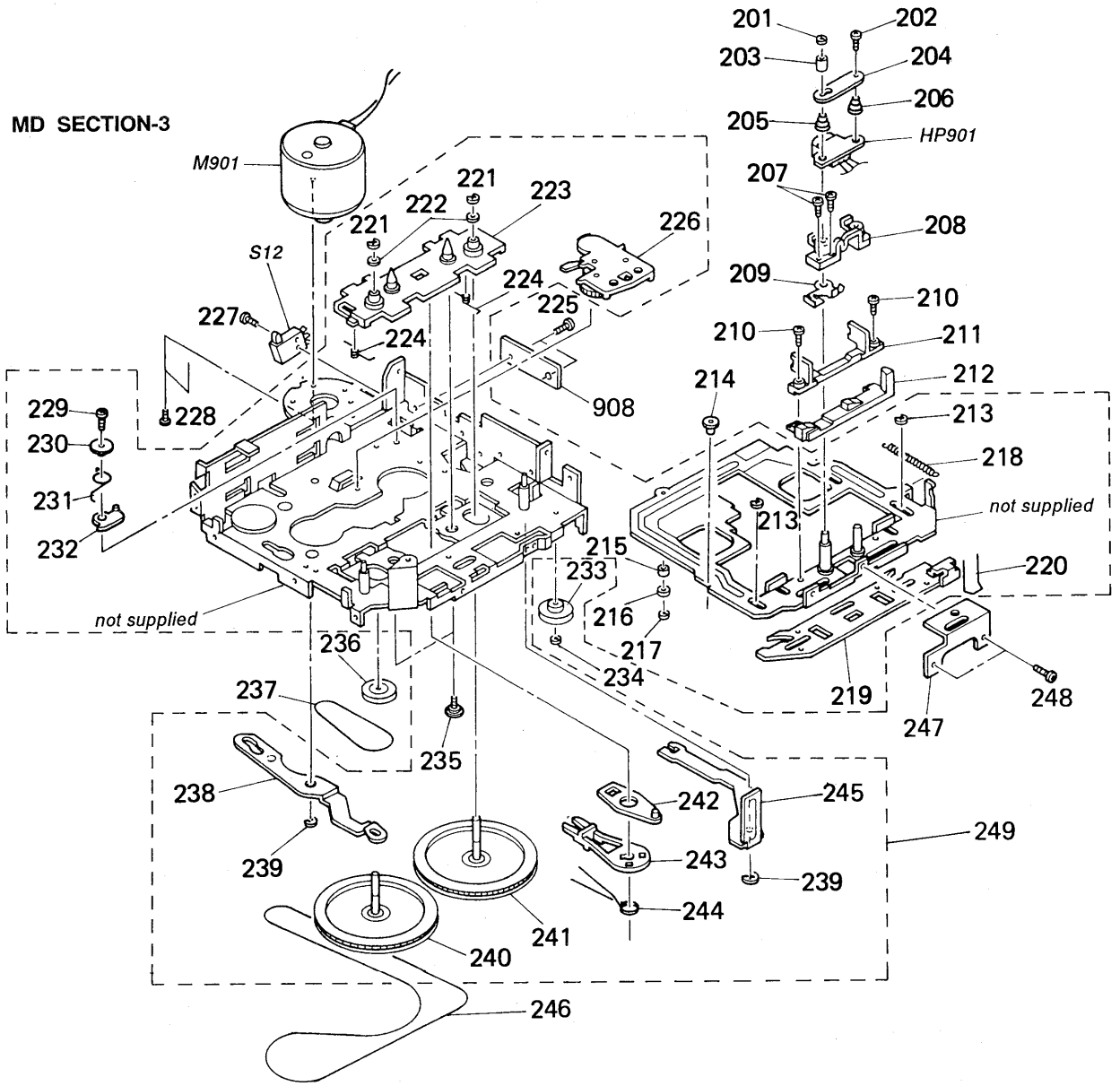
No.	Part No.	Description	Remarks
129	3-397-419-01	GEAR (A)	
130	3-392-989-02	ARM, GEAR LOCK	
131	3-392-949-02	SPRING	
132	3-570-615-00	POLY-WASHER (DIA.1.2)	
133	3-392-944-01	COLLAR (CELECTER GEAR)	
134	3-392-987-01	GEAR, SELECTOR	
135	3-397-459-01	ARM, SENSOR	
136	3-397-429-01	SPRING, DASH	
137	3-397-458-01	GEAR, DETECTION	
138	3-397-426-01	GEAR, ROAD	
139	3-559-408-11	WASHER, POLYETHYLENE, DIA.1.2	
140	3-397-425-01	GEAR, SELECTOR LOCK	
141	3-397-440-01	SPRING, SELECTOR GEAR LOCK	
142	*4-908-792-11	SCREW (B2X3), TAPPING, P1	
143	7-621-255-20	SCREW +PTT 2X4 (S)	
144	3-397-409-01	SPINDLE ASSY, REEL	
145	3-397-450-01	WASHER, STAINLESS	
146	3-397-423-01	CAM, DETECTION	
147	3-397-430-01	SPRING, BACK TENSION	
148	3-397-422-01	GEAR, F.R	
149	3-397-421-01	GEAR, IDLE	
150	X-3362-209-1	KEY OFF BLOCK ASSY 102,114,115,119,122, 124,125	
300	X-3362-211-1	BKT BLOCK ASSY, REEL BASE 102,116,120,123,126-132,134-141,144-149	
301	*4-918-544-11	SPACER (T)	
PM902	1-454-517-11	SOLENOID, PLUNGER	

(4) MD SECTION-2



No.	Part No.	Description	Remarks
151	7-624-104-04	STOP RING 2.0, TYPE -E	
152	*3-397-456-01	LEVER (Z), FF	
153	3-397-431-01	SPRING, FF/REW LEVER	
154	*3-397-457-01	LEVER (Z), REW	
155	3-392-994-01	ROLLER, PROGRAM	
156	7-624-102-04	STOP RING 1.5, TYPE -E	
157	3-397-439-01	SPRING, PROGRAM ARM	
158	*3-397-407-01	ARM ASSY, PROGRAM	
159	3-392-903-01	ARM, RELEASE	
160	*3-392-904-01	ARM (A), LOCK	
161	*3-397-415-01	ARM (A) ASSY, F.R	
162	3-896-913-11	SCREW (B2X6), P3 TAPPING	
163	3-392-917-01	SPRING	
164	*3-397-403-01	BRACKET ASSY, LEVER	
165	7-621-255-25	SCREW +PTT 2X4 (S)	
166	*3-392-920-01	LEVER (A) ASSY, CHANGE	
167	3-392-966-01	LINK, SELECTOR	
168	3-397-437-01	SPRING, EJECT LEVER	
169	*3-392-978-01	LEVER, EJECT	
170	3-397-438-01	SPRING, EJECT CAM	
171	*3-397-417-01	CAM ASSY, EJECT	
172	7-624-102-04	STOP RING 1.5, TYPE -E	
173	*3-392-927-01	ARM (R) ASSY, PINCH	
174	*3-392-928-01	ARM (F) ASSY, PINCH	
175	3-392-958-01	SPRING (R)	
176	3-392-957-01	SPRING (F)	
177	7-621-555-10	SCREW +K 2X3	
178	7-623-205-22	SW 2, TYPE 2	
179	4-908-792-31	SCREW (B2) (M2X4), TAPPING	
180	X-3362-210-1	BKT BLOCK ASSY, LEVER	151-161,164-166
907	*3-397-444-01	SWITCH (PWB)(SWITCH BOARD)	
PM901	1-454-464-11	SOLENOID, PLUNGER	

(5) MD SECTION-3



No.	Part No.	Description	Remarks
201	3-676-387-00	POLY-SLIDER (DIA.1.6)	
202	7-627-553-48	SCREW, PRECISION +P 2X4	
203	3-392-998-01	ROLLER (A), FF	
204	*3-392-930-01	RETAINER, SPRING	
205	3-397-433-01	SPRING (B), ADJUSTOR ARM	
206	3-397-432-01	SPRING (A), ADJUSTOR ARM	
207	3-392-909-01	SCREW, AZIMUTH ADJUSTMENT	
208	3-392-988-01	ARM, ADJUSTOR	
209	3-392-931-01	SEAM, ADJUSTOR	
210	7-627-553-88	SCREW, PRECISION +P 2X7	
211	3-392-984-01	GUIDE, TAPE	
212	3-392-971-01	LINK, ADJUSTOR	
213	7-624-118-01	RING, RETAINING E-2.5	
214	3-397-428-01	COLLAR, H.P	
215	3-392-942-01	ROLLER (B), H.P	
216	3-392-945-01	ROLLER (A), H.P	
217	3-570-615-00	POLY-WASHER (DIA.1.2)	
218	3-392-952-01	SPRING	
219	*3-397-401-01	ARM (A) ASSY, FR SELECTION	
220	3-392-962-01	SPRING	
221	3-590-768-00	RING (A), E	
222	3-701-437-11	POLY-SLIDER (A)	
223	3-392-914-01	BRACKET ASSY, CM	
224	3-392-963-01	SPRING (R)	
225	7-621-775-00	SCREW +P 2.6X3	
226	3-397-410-01	ARM ASSY, T.U	

No.	Part No.	Description	Remarks
227	3-318-203-11	SCREW (B1.7X6), TAPPING	
228	7-627-554-07	PRECISION SCREW +P 2X2.2 TYPE 3	
229	4-908-792-31	SCREW (B2) (M2X4), TAPPING	
230	*3-397-427-01	COLLAR, MUTE ARM	
231	3-397-434-01	SPRING, MUTE ARM	
232	*3-397-424-01	ARM, MUTE	
233	3-392-941-01	PULLEY (A), IDLE	
234	3-570-615-00	POLY-WASHER (DIA.1.2)	
235	3-392-918-01	SCREW, EJECT HOOK	
236	3-397-418-01	GEAR, PULLEY	
237	3-397-442-01	BELT, SUB	
238	*3-392-979-01	LEVER, REVERSE	
239	7-624-104-04	STOP RING 2.0, TYPE -E	
240	3-397-413-01	FLYWHEEL ASSY (BR)	
241	3-397-412-01	FLYWHEEL ASSY (BF)	
242	*3-397-408-01	ARM (D) ASSY, F.R	
243	3-397-461-01	ARM, FF	
244	3-397-435-01	SPRING, FF ARM	
245	*3-397-455-01	ARM (B), F.R	
246	3-397-443-01	BELT, MAIN	
247	*3-397-463-01	REINFORCEMENT	
248	3-397-464-01	SCREW, REINFORCEMENT FITTING	
249	X-3362-212-1	BKT BLOCK ASSY, CHASSIS 213,215-224,226, 229-232,235,238-245	
908	*3-397-446-01	MUTE (PWB)(MUTE BOARD)	
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
M901	3-397-414-01	MOTOR ASSY	
S12	1-554-790-11	SWITCH, POWER (PACK-IN)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TYPE A: XR-7070 (US) Main board part number. 1-634-042-11
B: XR-7070 (Canadian/AEP/E) and XR-7070 (US) Main board part number. 1-634-042-13

Ref.No.	Part No.	Description
901	*A-3270-740-A	MOUNTED PCB (B), KEY
902	*A-3222-037-A	(7070(US,Canadian))..PC BOARD ASSY, MAIN
	*A-3222-153-A	(7071).....PC BOARD ASSY, MAIN
	*A-3222-171-A	(7072).....PC BOARD ASSY, MAIN
	*A-3222-187-A	(7070(AEP,E))...PC BOARD ASSY, MAIN
903	*A-3273-192-A	(7072).....MOUNTED PCB, ARI
	*1-634-045-11	(7070/7071)...PC BOARD, ARI
904	*A-3271-491-A	MOUNTED PCB, POWER
905	1-575-559-11	(7070(US,Canadian)).....CORD, CONNECTOR
	1-575-559-22	(7070(AEP,E)/7071/7072)..CORD, CONNECTOR
906	1-575-560-11	CORD, CONNECTOR
907	*3-397-444-01	SWITCH (PWB)(SWITCH BOARD)
908	*3-397-446-01	MUTE (PWB)(MUTE BOARD)
BT851	1-528-225-31	BATTERY, LITHIUM
C1	1-126-157-11	ELECT 10MF 20% 16V
C2	1-124-234-00	ELECT 22MF 20% 16V
C3	1-126-288-11	ELECT 4.7MF 20% 16V
C4	1-130-473-00	MYLAR 0.0015MF 5% 50V
C5	1-163-189-00	CERAMIC CHIP 220PF 5% 50V
C6	1-126-301-11	ELECT 1MF 20% 50V
C7	1-124-464-11	ELECT 0.22MF 20% 50V
C8	1-124-443-00	ELECT 100MF 20% 10V
C9	1-126-288-11	ELECT 4.7MF 20% 16V
C10	1-163-053-00	CERAMIC CHIP 0.0033MF 10% 50V
C11	1-130-487-00	FILM 0.022MF 5% 50V
C12	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C13	1-126-301-11	ELECT 1MF 20% 50V
C14	1-130-485-00	(7071/7072)...FILM 0.015MF 5% 50V
C14	1-130-487-00	(7070).....FILM 0.022MF 5% 50V
C15	1-130-485-00	(7071/7072)...FILM 0.015MF 5% 50V
C15	1-130-487-00	(7070).....FILM 0.022MF 5% 50V
C16	1-163-161-00	CERAMIC CHIP 15PF 5% 50V
C17	1-163-161-00	CERAMIC CHIP 15PF 5% 50V
C18	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C19	1-126-157-11	ELECT 10MF 20% 16V
C20	1-136-165-00	FILM 0.1MF 5% 50V
C21	1-124-257-00	ELECT 2.2MF 20% 50V
C22	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C23	1-126-162-11	ELECT 3.3MF 20% 25V
C24	1-126-162-11	ELECT 3.3MF 20% 25V
C25	1-130-487-00	FILM 0.022MF 5% 50V
C26	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C27	1-124-242-00	ELECT 33MF 20% 16V
C28	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C29	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C30	1-163-053-00	CERAMIC CHIP 0.0033MF 10% 50V
C31	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C32	1-124-584-00	ELECT 100MF 20% 10V
C33	1-126-157-11	ELECT 10MF 20% 16V
C34	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C35	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C36	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C37	1-162-637-11	CERAMIC CHIP 0.47MF 16V
C001	1-164-232-11	(7070(AEP,E)/7072) ...CERAMIC CHIP 0.01MF 10% 50V
C002	1-164-232-11	(7070(AEP,E)/7072) ...CERAMIC CHIP 0.01MF 10% 50V
C003	1-164-232-11	(7070(AEP,E)/7072) ...CERAMIC CHIP 0.01MF 10% 50V
C004	1-164-232-11	(7070(AEP,E)/7072) ...CERAMIC CHIP 0.01MF 10% 50V
C005	1-163-037-11	(TYPE B)..CERAMIC CHIP 0.022MF 10% 50V
C006	1-161-379-00	(TYPE A)..CERAMIC 0.01MF 30% 16V
C006	1-163-037-11	(TYPE B)..CERAMIC CHIP 0.022MF 10% 50V
C007	1-164-232-11	(TYPE B)..CERAMIC CHIP 0.01MF 10% 25V
C101	1-126-288-11	ELECT 4.7MF 20% 16V
C102	1-130-467-00	MYLAR 470PF 5% 50V
C103	1-128-054-11	ELECT 22MF 20% 10V
C104	1-136-153-00	FILM 0.01MF 5% 50V
C105	1-126-157-11	ELECT 10MF 20% 16V
C106	1-126-301-11	ELECT 1MF 20% 50V
C107	1-126-157-11	ELECT 10MF 20% 16V
C108	1-131-587-11	TANTALUM 0.68MF 10% 35V
C118	1-124-464-11	ELECT 0.22MF 20% 50V
C119	1-126-157-11	ELECT 10MF 20% 16V
C120	1-163-167-00	CERAMIC CHIP 27PF 5% 50V
C121	1-130-476-00	MYLAR 0.0027MF 5% 50V
C122	1-136-162-00	FILM 0.056MF 5% 50V
C123	1-136-162-00	FILM 0.056MF 5% 50V
C124	1-126-157-11	ELECT 10MF 20% 16V
C125	1-130-477-00	MYLAR 0.0033MF 5% 50V
C128	1-126-157-11	ELECT 10MF 20% 16V
C129	1-124-464-11	ELECT 0.22MF 20% 50V
C130	1-126-157-11	ELECT 10MF 20% 16V
C133	1-124-584-00	ELECT 100MF 20% 10V
C134	1-126-157-11	ELECT 10MF 20% 16V
C135	1-126-157-11	ELECT 10MF 20% 16V
C136	1-126-157-11	ELECT 10MF 20% 16V

Ref.No.	Part No.	Description			
C139	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C140	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C141	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C201	1-126-288-11	ELECT	4.7MF	20%	16V
C202	1-130-467-00	MYLAR	470PF	5%	50V
C203	1-128-054-11	ELECT	22MF	20%	10V
C204	1-136-153-00	FILM	0.01MF	5%	50V
C205	1-126-157-11	ELECT	10MF	20%	16V
C206	1-126-301-11	ELECT	1MF	20%	50V
C207	1-126-157-11	ELECT	10MF	20%	16V
C208	1-131-587-11	TANTALUM	0.68MF	10%	35V
C218	1-124-464-11	ELECT	0.22MF	20%	50V
C219	1-126-157-11	ELECT	10MF	20%	16V
C220	1-163-167-00	CERAMIC CHIP	27PF	5%	50V
C221	1-130-476-00	MYLAR	0.0027MF	5%	50V
C222	1-136-162-00	FILM	0.056MF	5%	50V
C223	1-136-162-00	FILM	0.056MF	5%	50V
C224	1-126-157-11	ELECT	10MF	20%	16V
C225	1-130-477-00	MYLAR	0.0033MF	5%	50V
C228	1-126-157-11	ELECT	10MF	20%	16V
C229	1-124-464-11	ELECT	0.22MF	20%	50V
C230	1-126-157-11	ELECT	10MF	20%	16V
C233	1-124-584-00	ELECT	100MF	20%	10V
C234	1-126-157-11	ELECT	10MF	20%	16V
C235	1-126-157-11	ELECT	10MF	20%	16V
C236	1-126-157-11	ELECT	10MF	20%	16V
C239	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C240	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C241	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C301	1-124-360-00	ELECT	1000MF	20%	16V
C302	1-126-154-11	ELECT	47MF	20%	6.3V
C303	1-124-584-00	ELECT	100MF	20%	10V
C304	1-124-234-00	ELECT	22MF	20%	16V
C305	1-124-229-00	ELECT	33MF	20%	10V
C306	1-124-229-00	ELECT	33MF	20%	10V
C307	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C308	1-126-157-11	ELECT	10MF	20%	16V
C309	1-126-157-11	ELECT	10MF	20%	16V
C310	1-124-463-00	ELECT	0.1MF	20%	50V
C311	1-126-162-11	ELECT	3.3MF	20%	25V
C312	1-126-157-11	ELECT	10MF	20%	16V
C314	1-124-229-00	ELECT	33MF	20%	10V
C315	1-124-589-11	ELECT	47MF	20%	10V
C316	1-124-584-00	ELECT	100MF	20%	6.3V
C317	1-126-157-11	ELECT	10MF	20%	16V
C318	1-124-584-00	ELECT	100MF	20%	10V
C320	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C321	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C322	1-124-589-11	ELECT	47MF	20%	10V
C323	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C324	1-126-157-11	ELECT	10MF	20%	16V
C325	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C327	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C328	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C329	1-135-072-21	(7071)...TANTAL. CHIP	0.22MF	20%	35V
C329	1-163-063-00	(7070/7072) ...CERAMIC CHIP	0.022MF	10%	50V

Ref.No.	Part No.	Description			
C330	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C331	1-121-301-11	ELECT	1MF	20%	50V
C332	1-135-091-00	(7071)...TANTAL. CHIP	1MF	20%	16V
C332	1-163-063-00	(7070/7072) ...CERAMIC CHIP	0.022MF	10%	50V
C333	1-124-229-00	ELECT	33MF	20%	10V
C334	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C335	1-126-301-11	ELECT	1MF	20%	50V
C336	1-126-301-11	ELECT	1MF	20%	50V
C337	1-124-229-00	ELECT	33MF	20%	10V
C338	1-163-189-00	(7070(US,Canadian)/7071) ...CERAMIC CHIP	220PF	5%	50V
C338	1-164-232-11	(7070(AEP,E)/7072) ...CERAMIC CHIP	0.01MF	10%	50V
C339	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C340	1-124-234-00	ELECT	22MF	20%	16V
C342	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C400	1-162-294-31	(TYPE A)...CERAMIC	0.001MF	10%	50V
C400	1-163-205-00	(TYPE B)...CERAMIC CHIP	0.001MF	5%	50V
C501	1-124-257-00	ELECT	2.2MF	20%	50V
C502	1-124-234-00	ELECT	22MF	20%	10V
C503	1-136-166-00	FILM	0.12MF	5%	50V
C504	1-136-166-00	FILM	0.12MF	5%	50V
C505	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C551	1-124-257-00	ELECT	2.2MF	20%	50V
C552	1-124-234-00	ELECT	22MF	20%	10V
C553	1-136-166-00	FILM	0.12MF	5%	50V
C554	1-136-166-00	FILM	0.12MF	5%	50V
C555	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C591	1-128-138-11	ELECT	4700MF	20%	16V
C592	1-136-165-00	FILM	0.1MF	5%	50V
C593	1-163-173-00	CERAMIC CHIP	47PF	5%	50V
C595	1-126-176-11	ELECT	220MF	20%	10V
C601	1-124-257-00	ELECT	2.2MF	20%	50V
C602	1-124-234-00	ELECT	22MF	20%	10V
C603	1-136-166-00	FILM	0.12MF	5%	50V
C604	1-136-166-00	FILM	0.12MF	5%	50V
C605	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C651	1-124-257-00	ELECT	2.2MF	20%	50V
C652	1-124-234-00	ELECT	22MF	20%	10V
C653	1-136-166-00	FILM	0.12MF	5%	50V
C654	1-136-166-00	FILM	0.12MF	5%	50V
C655	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C695	1-126-176-11	ELECT	220MF	20%	10V
C700	1-161-494-00	(TYPE A)...CERAMIC	0.022MF		25V
C701	1-161-494-00	(TYPE A)...CERAMIC	0.022MF		25V
C791	1-163-201-00	CERAMIC CHIP	680PF	5%	50V
C792	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C793	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C794	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C801	1-130-477-00	(7072)...FILM	0.0033MF	5%	50V
C802	1-126-163-11	(7072)...ELECT	4.7MF	20%	16V
C803	1-136-175-00	(7072)...FILM	0.068MF	5%	50V
C804	1-136-175-00	(7072)...FILM	0.068MF	5%	50V
C805	1-124-463-00	(7072)...ELECT	0.1MF	20%	50V
C806	1-163-175-00	(7072)...CERAMIC CHIP	56PF	5%	50V
C807	1-124-463-00	(7072)...ELECT	0.1MF	20%	50V
C808	1-136-161-00	(7072)...FILM	0.047MF	5%	50V

Ref.No.	Part No.	Description
C809	1-136-161-00	(7072)...FILM 0.047MF 5% 50V
C810	1-124-463-00	(7072)...ELECT 0.1MF 20% 50V
C811	1-136-175-00	(7072)...FILM 0.068MF 5% 50V
C812	1-136-175-00	(7072)...FILM 0.068MF 5% 50V
C813	1-163-157-00	(7072)...FILM 0.022MF 5% 50V
C814	1-163-157-00	(7072)...FILM 0.022MF 5% 50V
C815	1-124-229-00	(7072)...ELECT 33MF 20% 10V
CNP901*1	-506-984-31	PIN, CONNECTOR (PC BOARD) 2P
CNP902*1	-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP903*1	-506-989-11	PIN, CONNECTOR (PC BOARD) 7P
CNP904*1	-566-011-11	PIN, CONNECTOR (PC BOARD) 14P
CNP905*1	-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP906*1	-506-999-11	PIN, CONNECTOR (PC BOARD) 3P
CNP907*1	-506-989-11	PIN, CONNECTOR (PC BOARD) 7P
CNP908*1	-506-986-11	PIN, CONNECTOR (PC BOARD) 4P
CNP909*1	-506-993-11	PIN, CONNECTOR (PC BOARD) 11P
CNP910*1	-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP911*1	-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP912*1	-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP913*1	-506-999-11	PIN, CONNECTOR (PC BOARD) 3P
CNP914*1	-506-987-11	PIN, CONNECTOR (PC BOARD) 5P
CNP915*1	-506-986-11	PIN, CONNECTOR (PC BOARD) 4P
CNP916*1	-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP917*1	-506-988-11	(7072)...PIN, CONNECTOR (PC BOARD) 6P
CNP921*1	-564-511-11	PLUG, CONNECTOR 8P
CNP922*1	-566-693-11	PIN, CONNECTOR 2P
D1	8-719-104-34	DIODE 1S2836
D2	8-719-104-34	DIODE 1S2836
D3	8-719-110-13	DIODE RD9.1ES-B2
D4	8-719-109-89	DIODE RD5.6ES-B2
D5	8-719-110-13	(7070/7072)...DIODE RD9.1ES-B2
D5	8-719-110-17	(7071).....DIODE RD10ES-B2
D101	8-719-109-80	DIODE RD4.7ES-B1
D201	8-719-109-80	DIODE RD4.7ES-B1
D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-109-80	DIODE RD4.7ES-B1
D304	8-719-400-18	DIODE MA152WK
D305	8-719-109-96	DIODE RD6.8ES-B1
D306	8-719-109-84	DIODE RD5.1ES-B1
D307	8-719-109-96	DIODE RD6.8ES-B1
D308	8-719-109-96	DIODE RD6.8ES-B1
D309	8-719-109-96	DIODE RD6.8ES-B1
D310	8-719-109-96	DIODE RD6.8ES-B1
D311	8-719-109-96	DIODE RD6.8ES-B1
D312	8-719-911-19	DIODE 1SS119
D313	8-719-911-19	DIODE 1SS119
D314	8-719-911-19	DIODE 1SS119
D315	8-719-911-19	DIODE 1SS119
D321	8-719-911-19	(7070(AEP,E)/7071)...DIODE 1SS119
D322	8-719-911-19	(7070(AEP,E))...DIODE 1SS119
D323	8-719-911-19	(7071/7072).....DIODE 1SS119
D325	8-719-911-19	DIODE 1SS119
D326	8-719-911-19	DIODE 1SS119
D327	8-719-911-19	DIODE 1SS119
D328	8-719-911-19	DIODE 1SS119

Ref.No.	Part No.	Description
D329	8-719-911-19	DIODE 1SS119
D330	8-719-911-19	DIODE 1SS119
D331	8-719-911-19	DIODE 1SS119
D333	8-719-110-22	DIODE RD11ES-B2
D334	8-719-110-13	DIODE RD9.1ES-B2
D335	8-719-109-93	DIODE RD6.2ES-B1
D336	8-719-104-34	DIODE 1S2836
D337	8-719-110-13	DIODE RD9.1ES-B2
D338	8-719-109-93	DIODE RD6.2ES-B1
D339	8-719-400-18	DIODE MA152WK
D340	8-719-109-72	DIODE RD3.9ES-B2
D341	8-719-110-13	DIODE RD9.1ES-B2
D342	8-719-109-89	DIODE RD5.6ES-B2
D344	8-719-109-89	DIODE RD5.6ES-B2
D345	8-719-400-18	DIODE MA152WK
D346	8-719-976-19	DIODE RLS-4148
D347	8-719-976-19	DIODE RLS-4148
D348	8-719-976-19	DIODE RLS-4148
D591	8-719-945-59	DIODE DSA3A4
D701	8-719-987-45	DIODE CL-155Y/PG-D
D702	8-719-987-45	DIODE CL-155Y/PG-D
D703	8-719-987-45	DIODE CL-155Y/PG-D
D704	8-719-987-45	DIODE CL-155Y/PG-D
D705	8-719-987-45	DIODE CL-155Y/PG-D
D706	8-719-987-45	DIODE CL-155Y/PG-D
D707	8-719-987-45	DIODE CL-155Y/PG-D
D708	8-719-987-45	DIODE CL-155Y/PG-D
D709	8-719-987-45	DIODE CL-155Y/PG-D
D710	8-719-987-45	DIODE CL-155Y/PG-D
D711	8-719-987-45	DIODE CL-155Y/PG-D
D712	8-719-987-45	DIODE CL-155Y/PG-D
D713	8-719-987-45	DIODE CL-155Y/PG-D
D714	8-719-987-45	DIODE CL-155Y/PG-D
D715	8-719-987-45	DIODE CL-155Y/PG-D
D716	8-719-987-45	DIODE CL-155Y/PG-D
D717	8-719-987-45	DIODE CL-155Y/PG-D
D718	8-719-987-45	DIODE CL-155Y/PG-D
D719	8-719-987-45	DIODE CL-155Y/PG-D
D720	8-719-987-45	DIODE CL-155Y/PG-D
D721	8-719-987-45	DIODE CL-155Y/PG-D
D722	8-719-987-45	DIODE CL-155Y/PG-D
D723	8-719-987-45	DIODE CL-155Y/PG-D
D724	8-719-987-45	DIODE CL-155Y/PG-D
D725	8-719-987-45	DIODE CL-155Y/PG-D
D801	8-719-104-34	(7072)...DIODE 1S2836
D851	8-719-911-19	DIODE 1SS119
FE1	1-465-141-11	(7071).....TUNER UNIT (FM/MW/LW)
FE1	1-465-405-11	(7070/7072)...TUNER UNIT (FM/AM)
HP901	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)
IC1	1-808-516-11	IC NMX3S920
IC2	8-759-821-41	IC LM7000N
IC101	8-759-634-40	IC M51524FP
IC102	8-759-932-64	IC BU4052BF
IC103	8-752-032-14	IC CXA1102M
IC104	8-759-820-15	IC LC7537AN

Ref.No.	Part No.	Description
IC105	8-759-909-71	IC BA4558F
IC106	8-759-909-71	IC BA4558F
IC107	8-759-909-71	IC BA4558F
IC108	8-759-909-71	IC BA4558F
IC109	8-759-909-71	IC BA4558F
IC110	8-759-909-71	IC BA4558F
IC111	8-759-631-00	IC M5280FP
IC301	8-759-149-68	IC UPD75116GF-625-3BE
IC302	8-759-008-67	IC MC14066BF
IC501	8-759-230-61	IC TA8205AH
IC601	8-759-230-61	IC TA8205AH
IC701	8-759-821-44	IC LC7582
IC801	8-759-971-69	(7072)...IC TDA1579
IC802	8-759-945-58	(7072)...IC RC4558P
JR2	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR4	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR5	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR6	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR43 (R43)	1-216-296-00	(7071)...METAL GLAZE 0 5% 1/8W
JR101	1-216-296-00	(7070/7071)...METAL GLAZE 0 5% 1/8W
JR102	1-216-296-00	(7070/7071)...METAL GLAZE 0 5% 1/8W
JR103	1-216-296-00	(7070/7071)...METAL GLAZE 0 5% 1/8W
JR105	1-216-184-00	(7071).....METAL GLAZE 270 5% 1/8W
JR105	1-216-296-00	(7070/7072)...METAL GLAZE 0 5% 1/8W
JR106	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR107	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR108	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR109	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR110	1-216-296-00	(7071)...METAL GLAZE 0 5% 1/8W
JR501	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR502	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR503	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR504	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR505	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR801	1-216-296-00	(7072)...METAL GLAZE 0 5% 1/8W
JW701	1-216-296-00	METAL GLAZE 0 5% 1/8W
JW702	1-216-296-00	METAL GLAZE 0 5% 1/8W
L1	1-410-513-11	INDUCTOR 22UH
L301	1-408-111-00	INDUCTOR 3.3UH
L302	1-410-513-11	INDUCTOR 22UH
L303	1-410-513-11	INDUCTOR 22UH
L801	1-424-036-11	(7072)...COIL (FILTER)
LCD701	1-808-975-11	DISPLAY PANEL, LIQUID CRYSTAL
M901	3-397-414-01	MOTOR ASSY
PL701	1-518-646-11	LAMP, PILOT (AMBER)
PL702	1-518-646-11	LAMP, PILOT (AMBER)
PL703	1-518-648-11	LAMP, PILOT (GREEN)
PL704	1-518-648-11	LAMP, PILOT (GREEN)
PM901	1-454-464-11	SOLENOID, PLUNGER
PM902	1-454-517-11	SOLENOID, PLUNGER
Q1	8-729-100-66	TRANSISTOR 2SC1623
Q2	8-729-100-66	TRANSISTOR 2SC1623
Q3	8-729-100-66	TRANSISTOR 2SC1623
Q4	8-729-100-66	TRANSISTOR 2SC1623
Q5	8-729-100-66	TRANSISTOR 2SC1623
Q6	8-729-901-01	TRANSISTOR DTC144EK
Q7	8-729-901-04	TRANSISTOR DTA114EK
Q8	8-729-807-12	TRANSISTOR 2SD1802-S
Q9	8-729-920-78	TRANSISTOR 2SB1132-QR
Q10	8-729-920-78	TRANSISTOR 2SB1132-QR
Q11	8-729-106-68	TRANSISTOR 2SD1615A-GP
Q102	8-729-920-21	TRANSISTOR DTC314TKH04
Q103	8-729-920-21	TRANSISTOR DTC314TKH04
Q202	8-729-920-21	TRANSISTOR DTC314TKH04
Q203	8-729-920-21	TRANSISTOR DTC314TKH04
Q301	8-729-920-78	TRANSISTOR 2SB1132-QR
Q302	8-729-900-53	TRANSISTOR DTC114EK
Q303	8-729-100-66	TRANSISTOR 2SC1623
Q304	8-729-807-50	TRANSISTOR 2SD1623
Q305	8-729-900-53	TRANSISTOR DTC114EK
Q307	8-729-900-53	TRANSISTOR DTC114EK
Q308	8-729-100-66	TRANSISTOR 2SC1623
Q309	8-729-807-12	TRANSISTOR 2SD1802-S
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-901-01	TRANSISTOR DTC144EK
Q312	8-729-807-12	TRANSISTOR 2SD1802-S
Q313	8-729-106-68	TRANSISTOR 2SD1615A-GP
Q314	8-729-100-66	TRANSISTOR 2SC1623
Q315	8-729-216-22	TRANSISTOR 2SA1162
Q316	8-729-901-01	TRANSISTOR DTC144EK
Q319	8-729-807-12	TRANSISTOR 2SD1802-S
Q323	8-729-901-04	TRANSISTOR DTA114EK
Q324	8-729-900-53	TRANSISTOR DTC114EK
Q325	8-729-920-78	TRANSISTOR 2SB1132-QR
Q326	8-729-100-66	TRANSISTOR 2SC1623
Q327	8-729-901-04	TRANSISTOR DTA114EK
Q328	8-729-216-22	TRANSISTOR 2SA1162
Q329	8-729-920-78	TRANSISTOR 2SB1132-QR
Q330	8-729-900-53	TRANSISTOR DTC114EK
Q332	8-729-901-06	TRANSISTOR DTA144EK
Q701	8-729-141-75	TRANSISTOR 2SD596-DV345
Q702	8-729-141-75	TRANSISTOR 2SD596-DV345
Q703	8-729-141-75	TRANSISTOR 2SD596-DV345
Q704	8-729-904-78	TRANSISTOR DTD113ZK
R1	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R2	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W
R3	1-216-194-00	METAL GLAZE 680 5% 1/8W
R4	1-216-229-00	METAL GLAZE 20K 5% 1/8W
R5	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R6	1-216-150-00	METAL GLAZE 10 5% 1/8W
R7	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R8	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R9	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W
R10	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R11	1-216-232-00	METAL GLAZE 27K 5% 1/8W
R12	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R13	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R14	1-216-228-00	(7071/7072) ...METAL GLAZE 18K 5% 1/8W
R14	1-216-230-00	(7070)...METAL GLAZE 22K 5% 1/8W

Ref.No.	Part No.	Description			
R15	1-216-228-00	(7071/7072)			
		...METAL GLAZE	18K	5%	1/8W
R15	1-216-230-00	(7070)...METAL GLAZE	22K	5%	1/8W
R16	1-216-236-00	(7071/7072)			
		...METAL GLAZE	39K	5%	1/8W
R16	1-216-240-00	(7070)...METAL GLAZE	56K	5%	1/8W
R17	1-216-236-00	(7071/7072)			
		...METAL GLAZE	39K	5%	1/8W
R17	1-216-240-00	(7070)...METAL GLAZE	56K	5%	1/8W
R18	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R19	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W
R20	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R21	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R22	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R23	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R24	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R25	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W
R26	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R27	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R28	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R29	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R30	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R31	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R32	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R33	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R34	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W
R35	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R36	1-216-190-00	METAL GLAZE	470	5%	1/8W
R37	1-216-232-00	METAL GLAZE	27K	5%	1/8W
R38	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R39	1-216-194-00	METAL GLAZE	680	5%	1/8W
R41	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R42	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R44	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R101	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R102	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R103	1-216-180-00	METAL GLAZE	180	5%	1/8W
R104	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R105	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R106	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R107	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R108	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R114	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R116	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R117	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R118	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R119	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R120	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R123	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R124	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R129	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R130	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R131	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R133	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R134	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R137	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R201	1-216-230-00	METAL GLAZE	22K	5%	1/8W

Ref.No.	Part No.	Description			
R202	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R203	1-216-180-00	METAL GLAZE	180	5%	1/8W
R204	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R205	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R206	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R207	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R208	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R214	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R216	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R217	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R218	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R219	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R220	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R223	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R224	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R229	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R230	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R231	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R233	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R234	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R237	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R301	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R302	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R303	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R304	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R305	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R306	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R307	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R308	1-216-190-00	METAL GLAZE	470	5%	1/8W
R309	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R310	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R311	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R312	1-216-263-00	METAL GLAZE	510K	5%	1/8W
R313	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R314	1-216-192-00	METAL GLAZE	560	5%	1/8W
R317	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R318	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R320	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R321	1-215-460-00	METAL	43K	1%	1/6W
R322	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R323	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R324	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R325	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R326	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R327	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R328	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R329	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R330	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R331	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R332	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R333	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R334	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R335	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R336	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R337	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R338	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R339	1-216-246-00	METAL GLAZE	100K	5%	1/8W

Ref.No.	Part No.	Description			
R340	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R341	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R342	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R343	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R344	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R345	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R346	1-216-174-00	METAL GLAZE	100	5%	1/8W
R347	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R348	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R349	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R350	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R351	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R352	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R353	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R354	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R355	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R356	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R357	1-216-182-00	METAL GLAZE	220	5%	1/8W
R358	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R359	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R360	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R361	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R362	1-216-190-00	METAL GLAZE	470	5%	1/8W
R363	1-216-190-00	METAL GLAZE	470	5%	1/8W
R367	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R368	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R369	1-216-216-00	METAL GLAZE	5.6K	5%	1/8W
R372	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R373	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R374	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R375	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R376	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R377	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R378	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R380	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R381	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R382	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R383	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R384	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R389	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R390	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R392	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R393	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R396	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R399	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R501	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W
R502	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R503	1-216-278-00	METAL GLAZE	2.2M	5%	1/8W
R504	1-216-190-00	METAL GLAZE	470	5%	1/8W
R507	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R508	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R551	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R552	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R553	1-216-278-00	METAL GLAZE	2.2M	5%	1/8W
R554	1-216-190-00	METAL GLAZE	470	5%	1/8W
R557	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R558	1-216-134-00	METAL GLAZE	2.2	5%	1/8W

Ref.No.	Part No.	Description			
R591	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R592	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R601	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W
R602	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R603	1-216-278-00	METAL GLAZE	2.2M	5%	1/8W
R604	1-216-190-00	METAL GLAZE	470	5%	1/8W
R607	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R608	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R651	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R652	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R653	1-216-278-00	METAL GLAZE	2.2M	5%	1/8W
R654	1-216-190-00	METAL GLAZE	470	5%	1/8W
R657	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R658	1-216-134-00	METAL GLAZE	2.2	5%	1/8W
R692	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R701	1-216-176-00	METAL GLAZE	120	5%	1/8W
R702	1-216-176-00	METAL GLAZE	120	5%	1/8W
R703	1-216-176-00	METAL GLAZE	120	5%	1/8W
R704	1-216-176-00	METAL GLAZE	120	5%	1/8W
R705	1-216-176-00	METAL GLAZE	120	5%	1/8W
R706	1-216-176-00	METAL GLAZE	120	5%	1/8W
R707	1-216-176-00	METAL GLAZE	120	5%	1/8W
R708	1-216-183-00	METAL GLAZE	240	5%	1/8W
R709	1-216-183-00	METAL GLAZE	240	5%	1/8W
R710	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R711	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R712	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R713	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R714	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R715	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R716	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R751	1-216-176-00	METAL GLAZE	120	5%	1/8W
R752	1-216-176-00	METAL GLAZE	120	5%	1/8W
R753	1-216-176-00	METAL GLAZE	120	5%	1/8W
R754	1-216-176-00	METAL GLAZE	120	5%	1/8W
R755	1-216-176-00	METAL GLAZE	120	5%	1/8W
R756	1-216-176-00	METAL GLAZE	120	5%	1/8W
R757	1-216-176-00	METAL GLAZE	120	5%	1/8W
R758	1-216-183-00	METAL GLAZE	240	5%	1/8W
R759	1-216-183-00	METAL GLAZE	240	5%	1/8W
R791	1-216-262-00	METAL GLAZE	470K	5%	1/8W
R792	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R801	1-216-238-00	(7072)...METAL GLAZE	47K	5%	1/8W
R802	1-216-242-00	(7072)...METAL GLAZE	68K	5%	1/8W
R803	1-216-214-00	(7072)...METAL GLAZE	4.7K	5%	1/8W
R804	1-216-246-00	(7072)...METAL GLAZE	100K	5%	1/8W
R805	1-216-190-00	(7072)...METAL GLAZE	470	5%	1/8W
R806	1-216-266-00	(7072)...METAL GLAZE	680K	5%	1/8W
R807	1-216-254-00	(7072)...METAL GLAZE	220K	5%	1/8W
R808	1-216-216-00	(7072)...METAL GLAZE	5.6K	5%	1/8W
R809	1-216-210-00	(7072)...METAL GLAZE	3.3K	5%	1/8W
R810	1-216-216-00	(7072)...METAL GLAZE	5.6K	5%	1/8W
R811	1-216-210-00	(7072)...METAL GLAZE	3.3K	5%	1/8W
R812	1-216-265-00	(7072)...METAL GLAZE	620K	5%	1/8W
R813	1-216-238-00	(7072)...METAL GLAZE	47K	5%	1/8W
R814	1-216-234-00	(7072)...METAL GLAZE	33K	5%	1/8W
R815	1-216-224-00	(7072)...METAL GLAZE	12K	5%	1/8W

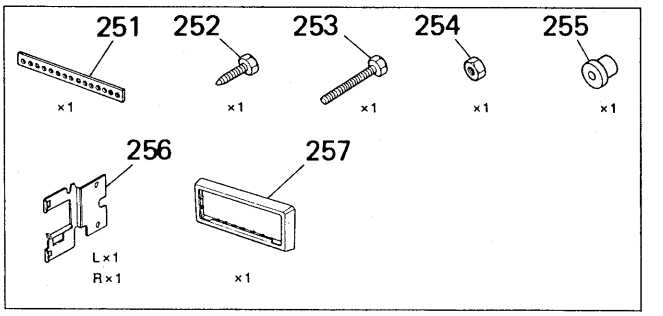
Ref.No.	Part No.	Description
R816	1-216-255-00	(7072)...METAL GLAZE 240K 5% 1/8W
R817	1-216-244-00	(7072)...METAL GLAZE 82K 5% 1/8W
R818	1-216-238-00	(7072)...METAL GLAZE 47K 5% 1/8W
R819	1-216-190-00	(7072)...METAL GLAZE 470 5% 1/8W
R820	1-216-238-00	(7072)...METAL GLAZE 47K 5% 1/8W
R821	1-216-222-00	(7072)...METAL GLAZE 10K 5% 1/8W
R822	1-216-224-00	(7072)...METAL GLAZE 12K 5% 1/8W
R851	1-216-198-00	METAL GLAZE 1K 5% 1/8W
RV1	1-228-994-00	RES, ADJ, CARBON 10K
RV101	1-226-773-11	RES, ADJ, METAL GLAZE 22K
RV201	1-226-773-11	RES, ADJ, METAL GLAZE 22K
RV801	1-226-769-00	(7072)...RES, ADJ, METAL GLAZE 100
S10	1-572-353-11	SWITCH, SLIDE (R/N)
S11	1-572-352-11	SWITCH, LEAF (FF/REW)
S12	1-554-790-11	SWITCH, POWER (PACK-IN)
S301	1-553-510-00	(7070(AEP,E))...SWITCH, SLIDE (9K/10K)
S302	1-553-510-00	SWITCH, SLIDE (ACC)
S901	1-570-771-11	SWITCH (POWER)
SW701	1-571-938-21	SWITCH, KEY BOARD (LOUD)
SW702	1-571-938-21	SWITCH, KEY BOARD (M.SCAN/A.MEM)
SW703	1-571-938-21	SWITCH, KEY BOARD (SENS)
SW704	1-571-938-21	SWITCH, KEY BOARD (DSPL)
SW705	1-554-813-41	SWITCH, KEY BOARD (LEVEL +)
SW706	1-554-813-41	SWITCH, KEY BOARD (SELECT)
SW707	1-554-813-41	SWITCH, KEY BOARD (LEVEL -)
SW708	1-554-813-41	SWITCH, KEY BOARD (MUTE)
SW709	1-554-813-41	SWITCH, KEY BOARD (SHUF 1/1)
SW710	1-554-813-41	SWITCH, KEY BOARD (SHUF 2/2)
SW711	1-554-813-41	SWITCH, KEY BOARD (MTL/3)
SW712	1-554-813-41	SWITCH, KEY BOARD (AMS/4)
SW713	1-554-813-41	SWITCH, KEY BOARD (DOLBY/5)
SW714	1-554-813-41	SWITCH, KEY BOARD (ATA/6)
SW715	1-554-813-41	SWITCH, KEY BOARD (DISC +/MANUAL +)
SW716	1-554-813-41	SWITCH, KEY BOARD (DISC -/MANUAL -)
SW717	1-554-813-41	SWITCH, KEY BOARD (SEEK +/TRACK +)
SW718	1-554-813-41	SWITCH, KEY BOARD (SEEK -/TRACK -)
SW719	1-554-813-41	SWITCH, KEY BOARD (FM/AM)
SW720	1-554-813-41	SWITCH, KEY BOARD (CD)
SW721	1-571-938-21	SWITCH, KEY BOARD (TAPE)
SW722	1-571-938-21	SWITCH, KEY BOARD (OFF)
SW723	1-554-813-41	SWITCH, KEY BOARD (RESET)
X1	1-567-250-11	OSCILLATOR, CERAMIC (456kHz)
X2	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)
X301	1-567-170-00	OSCILLATOR, CERAMIC (4.19MHz)

ACCESSORY & PACKING MATERIAL

3-336-617-01	BAG, PROTECTION
*3-349-488-01	CUSHION (UPPER)
*3-349-489-01	CUSHION (LOWER)
*3-358-602-01	(7070)...INDIVIDUAL CARTON
*3-362-794-01	(7071)...INDIVIDUAL CARTON
*3-362-796-01	(7072)...INDIVIDUAL CARTON

3-751-518-11	(7070(AEP)/7071)....MANUAL, INSTRUCTION (Installation/Connection) (English,French,Dutch)
3-751-518-21	(7070(US,Canadian))..MANUAL, INSTRUCTION (Installation/Connection) (English,French)
3-751-518-41	(7070(AEP))...MANUAL, INSTRUCTION (Installation/Connection) (Spanish,Swedish,Italian,Portuguese)
3-751-518-51	(7072)....MANUAL, INSTRUCTION (Installation/Connection) (English,French,German,Italian)
3-751-518-61	(7070(E))...MANUAL, INSTRUCTION (Installation/Connection) (English,Spanish,Chinese)
3-751-519-11	(7070(AEP)/7071)....MANUAL, INSTRUCTION (English,French,Dutch)
3-751-519-21	(7070(US,Canadian))..MANUAL, INSTRUCTION (English,French)
3-751-519-41	(7070(AEP))...MANUAL, INSTRUCTION (Spanish,Swedish,Italian,Portuguese)
3-751-519-51	(7072).....MANUAL, INSTRUCTION (English,French,German,Italian)
3-751-519-61	(7070(E))....MANUAL, INSTRUCTION (English,Spanish,Chinese)

MOUNTING HARDWARE



No.	Part No.	Description	Remarks
251	3-310-655-01	SUPPORT (ND), FITTING	
252	3-302-126-01	SCREW, TAPPING (DIA. 5X20)	
253	7-682-583-04	SCREW +P 5X40	
254	7-684-025-04	N 5, TYPE 2	
255	3-349-410-01	BUSHING	
256	*3-349-456-01	BRACKET (FIX, LEFT)	
	*3-349-457-01	BRACKET (FIX, RIGHT)	
257	*3-349-458-01	FRAME, ORNAMENTAL	

9-956-051-12
(Including 9-956-051-91)

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